

Big Blue® 600 Series

**Diesel Engine-Driven
Welder/AC Generator** 

Quick Specs

Heavy Industrial Applications

Maintenance and repair rigs
Heavy construction
Mining maintenance
Railroad maintenance
Pipe welding

Processes

Stick (SMAW)
MIG (GMAW)
Flux-cored (FCAW)
RMD®*
Pulsed MIG (GMAW-P)*
DC TIG (GTAW)
Submerged arc (SAW)
Air carbon arc (CAC-A)
3/8-inch (9.5 mm) carbons

Output Range DC stick/TIG 20–600 A
DC MIG/FCAW 14–50 V

Generator Output Rated at 104°F (40°C)
3-phase 27,000 watts peak, 20,000 watts continuous
1-phase 15,000 watts peak, 12,000 watts continuous

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

**Available only on ArcReach models.*



Heavy-duty low-speed T4F industrial diesel engines.

The cleanest, greenest diesel power available. Utilizes diesel oxidation catalyst (DOC) technology to keep the air clean with **NO** exhaust aftertreatment maintenance.



Remote control of the power source without a cord. See page 3.



Big Blue 600 Pro

Tackle tough jobs that require high-output for welding, gouging, and auxiliary power.

Big Blue 600 Air Pak™

All-in-one welder/generator eliminates the need for an auxiliary air compressor. The industrial Ingersoll Rand screw-type air compressor is ideal for gouging and running pneumatic tools.



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



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MillerWelds.com



Specifications (Subject to change without notice.)



Weld Mode/ Process	Weld Output Range	Weld Output Rated at 104°F (40°C)	Max. Open-Circuit Voltage	Generator Power Output Rated at 104°F (40°C)***	Dimensions	Weight
CC/DC (Stick/TIG)	20–600 A	600 Pro 500 A at 40 V, 100% duty cycle* 550 A at 42 V, 60% duty cycle* 600 A at 42 V, 40% duty cycle	92 VDC 15 VDC**	3-phase: 27,000 watts peak, 20,000 watts continuous 1-phase: 15,000 watts peak, 12,000 watts continuous	H: 46 in. (1,168 mm) W: 28.5 in. (724 mm) D: 69.5 in. (1,765 mm) <i>Add 7.5 in. (191 mm) to height for exhaust pipe</i>	600 Pro Net: 1,750 lb. (793.8 kg) Ship: 1,801 lb. (816.9 kg)
CV/DC (MIG/FCAW)	14–50 V	600 Air Pak 500 A at 40 V, 100% duty cycle* 575 A at 43 V, 100% duty cycle* 600 A at 44 V, 60% duty cycle				600 Air Pak Net: 2,040 lb. (925.3 kg) Ship: 2,090 lb. (948 kg) <i>Add 165 lb. (75 kg) when fuel tank is full</i>

*Meets NEMA and IEC ratings. **Sense voltage for stick and Lift-Arc™ TIG. ***Will operate either 60 hertz or 50/60 hertz power tools, lights, etc.

Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

Engine Specifications (Engines warranted separately by the engine manufacturer.)

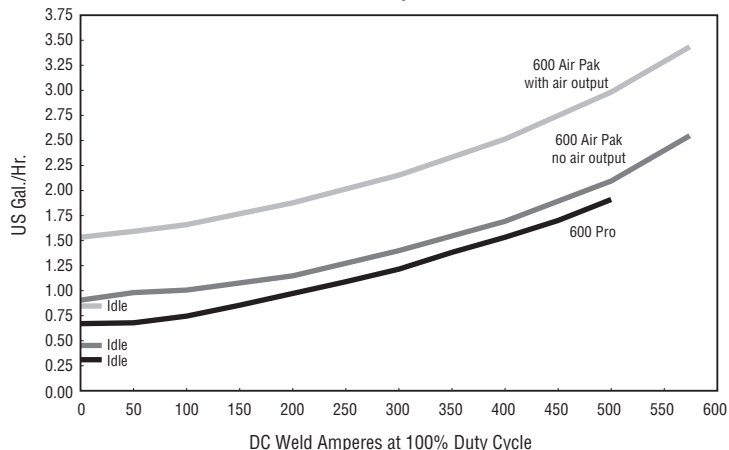
Model	Engine Brand	Features	HP	Type	Engine Speeds	Sound Levels at 23 ft. (7 m)	Capacities	Automatic Engine Shutdown
Big Blue 600 Pro	Kubota V2403	EPA Tier 4 Final compliant, includes 120 V block heater and automatic glow plugs	48.9	Turbo-charged four-cylinder, liquid-cooled industrial diesel	Idle: 1,350 rpm Weld: 1,800 rpm	Idle: 65.9 dB (90.7 Lwa) Weld: 74.3 dB (99.1 Lwa)	Fuel: 25 gal. (95 L) Oil: 10 qt. (9.5 L) Coolant: 9 qt. (8.5 L)	Low oil pressure, high coolant temperature, low fuel level
Big Blue 600 Air Pak	Deutz TD2.9 L4	EPA Tier 4 Final compliant, includes 120 V block heater and automatic glow plugs	65.7	Turbo-charged four-cylinder, liquid-cooled industrial diesel	Idle: 1,350 rpm Weld: 1,800 rpm	Idle: 71.3 dB (96.1 Lwa) Weld: 78.9 dB (103.7 Lwa)	Fuel: 25 gal. (95 L) Oil: 8.5 qt. (8 L) Coolant: 16 qt. (15.2 L)	Low oil pressure, high coolant temperature, low fuel level

Air Compressor (600 Air Pak model only.)

Compressor Brand	Features	Free Air Delivery	Working Pressure Constant	Duty Cycle	Oil Capacity	Automatic Compressor Shutdowns
Ingersoll Rand CE55 G1	Rotary screw with electric clutch for on/off. Oil change intervals of 500 hours. Life expectancy of 30,000 hours.	Idle speed: 40 cfm (1.13 m³/min.) Run speed: 60 cfm (1.70 m³/min.)	100 psig (7 bar)	100%	4 qt. (3.79 L)	Oil temperature

Performance Data

Fuel Consumption Curve

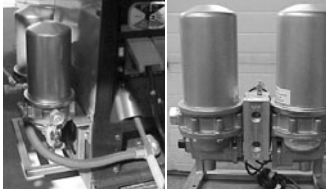


Simultaneous Welding and Power

Weld Amperes	Total Aux. Power Available (Watts)	
	1-Phase*	3-Phase
No Weld Output	16,000	20,000
200 A at 28 V	16,000	20,000
300 A at 32 V	13,000	18,000
400 A at 36 V	9,000	12,500
500 A at 40 V	4,500	5,750
600 A at 42 V	4,000	0

*Single-phase listings include 4,000 watts from the exciter stator.

Genuine Miller® Accessories



Desiccant Air Dryer System

195117 Side mount

195117001 Rear mount

For 600 Air Pak™ model only. 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 ensure good air quality in all climates. The system can be mounted on the side or on the rear of the machine to meet your installation requirements.

Polarity Reversing Switch Kit 301112 Field

Standard on Deluxe models. Changes DC polarity without the use of tools.



Female Receptacle

Full KVA Adapter Cord 300517 Field

NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240 V plug to common Millermatic® and Spectrum® 240 V plug.



Full KVA Plug Kit Field

119172 1-phase, 120/240 V, 50 A plug (NEMA 14-50P)

254140 3-phase, 240 V, 50 A plug (NEMA 15-50P)

Engine Filter Kits

273293 Field. For Kubota engine

262459 Field. For Deutz engine

Includes all filters required for proper engine maintenance. Oil filter, primary and secondary fuel filter, primary air filter, and safety element.

Compressor Kit 279121 Field

For 600 Air Pak model only. Includes oil and all filters required for proper compressor maintenance. Oil filter, air filter and coalescing filter.



Spark Arrestor Kit

195012 Field Prevents particles from leaving the muffer that could

potentially start a fire. Mandatory when operating on California grasslands, brush, or forest-covered land, and in all national forests. For other areas, check your state and local laws. Meets U.S. Forest Service standard 5100-1B.



FA-1D Lockable Flame Arrestor

Fuel Cap 043947 Field

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

399802 Field

Lockable hinged steel panels cover and protect name plate gauges and ignition switch (padlock included).



Cable Holder

043946 Field

Saddle-bag-style cable holder. Convenient wrap-around storage of coiled cable for transportation. Stores 100 feet 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

301113

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.

MIG (GMAW) or Flux-cored (FCAW)



SuitCase® X-TREME™ 8VS Wire Feeder 951582

SuitCase® X-TREME™ 12VS Wire Feeder 951543

Lightweight, voltage-sensing wire feeders include secondary contactor, gas valve, drive roll kit and MIG gun. See literature M/6.42.



SuitCase® 12RC Wire Feeder 951580

Lightweight and flexible enough to run a variety of wires up to .062-inch diameter. Includes remote voltage control, drive roll kit and MIG gun. See literature M/6.5.



ArcReach® Smart Feeder 300935

For use with ArcReach models only. For MIG, FCAW, and advanced RMD® and pulse processes. See page 3 for more information.



SuitCase® X-TREME™ 8VS ArcReach®

951588 With Bernard™ S-Gun™

951584 With Bernard™ BTB Gun 300 A

SuitCase® X-TREME™ 12VS ArcReach®

951589 With Bernard™ S-Gun™

951581 With Bernard™ BTB Gun 300 A

Portable feeder designed to run off of arc voltage. When paired with an ArcReach power source provides remote control of the power source without a cord — saving time and money. See literature M/6.42.

MIG (GMAW)/Flux-cored (FCAW) Guns

See Bernard™ literature SP-BTB for BTB air-cooled MIG guns, and SP-DF for Dura-Flux™ self-shielded flux-cored guns.



Spoolmatic® 30A Spool Gun 130831

Air-cooled, 200-amp, one-pound spool gun for aluminum and

stainless MIG. See literature M/1.73. Requires **WC-24 Control (137549)**.

XR™ Wire Feeders and Guns

Push-pull system designed to handle difficult-to-feed soft alloy wires such as aluminum. See literature M/1.7 through M/1.75.

AC TIG (GTAW) Welding



Dynasty® 210 Series

For portable AC/DC TIG. See literature AD/4.81.

Genuine Miller Accessories (Continued)

Plasma Cutting



Spectrum 375 X-TREME and 625 X-TREME shown.

Spectrum® 375 X-TREME™ 907529

See literature PC/9.2.

Spectrum® 625 X-TREME™ 907579

See literature PC/9.6.

Spectrum® 875 907583

See literature PC/9.8.

The Spectrum 375 X-TREME and 625 X-TREME come complete with protective X-CASE™ (not shown).

Stick/TIG Remote Controls



ArcReach® Stick/TIG Remote 301325

When paired with an ArcReach power source, provides remote control of the power source without a cord — saving time and money. See literature AY/14.5.



Wireless Remote Hand Control 300430

For remote current, voltage and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 300-foot (91.4 m) operating range. Wireless antenna kit **300749** recommended.

Wireless Antenna Kit 300749

Optional when improved reception is desired.



RHC-14 Hand Control 242211020

Miniature hand control for remote current, voltage and contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 82 mm). Includes 20-foot (6 m) cord and 14-pin plug.

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

242208025 25 ft. (7.6 m)

242208050 50 ft. (15.2 m)

242208080 80 ft. (24.4 m)

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



4 West Four-Wheel Steerable Off-Road Trailer 042801

A heavy-duty 2,550-pound (1,157 kg) capacity trailer designed for use in mines, quarries, and other rough terrain. Has narrow 22-foot (6.7 m) turning radius. Includes 3-inch (76 mm) lunette eye, universal hitch and safety chains.

Cable Tree 043826

For use with HWY-225. Provides an area to conveniently wrap weld cables and extension cords.



Dual Hitch 301441

For use with HWY-225. 2-inch (50 mm) ball hitch and 3-inch (76 mm) lunette eye in one reversible assembly.



2-In-1 Document/Fire Extinguisher Holder 301236

For use with HWY-225. Stores documents and holds a 5-pound fire extinguisher.

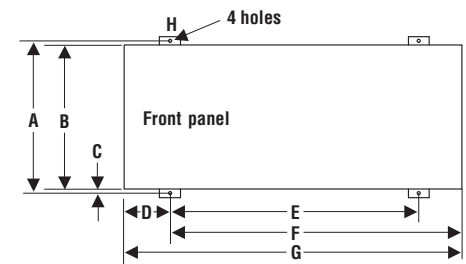
Note: Holder shown mounted on trailer. Fire extinguisher not included.



HWY-225 Trailer 301338

A 2,700-pound (1,225 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. Includes jack stand, fenders, lights, and dual hitch with 2-inch (50 mm) ball hitch and 3-inch (76 mm) lunette eye.

Mounting Specifications



A. 29.812 in. (757 mm)

B. 27.5 in. (699 mm)

C. 1 in. (25 mm)

D. 11.625 in. (295 mm)*

E. 46.375 in. (1,178 mm)*

F. 58 in. (1,473 mm)*

G. 69.5 in. (1,765 mm)

H. .562 in. (14 mm) dia.

Height:

46 in. (1,168 mm) to top of cover
Add 7.5 in. (191 mm) to heights for exhaust pipe
(Exhaust measurement subject to change.)

Width:

28.5 in. (724 mm) (mounting brackets turned in)
30.75 in. (781 mm) (mounting brackets turned out)

*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	2,000 lb./axle (907 kg/axle)	3,000 lb. (1,361 kg)	2,550 lb. (1,157 kg)	21.25 in. (540 mm)	8 in. (203 mm)	55.25 in. (1,403 mm)	B78-13	Length: 91 in. (2,311 mm)* Width: 61.25 in. (1,556 mm)	430 lb. (195 kg)
HWY-225	3,500 lb. (1,588 kg)	2,999 lb. (1,360 kg)	2,700 lb. (1,225 kg)	19 in. (483 mm)	7.5 in. (191 mm)	50 in. (1,270 mm)	ST175/80R-13 Load Range D	Length: 105.5 in. (2,680 mm) Width: 56.5 in. (1,435 mm)**	280 lb. (127 kg)

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