**Big Blue® 500 X and 600 X**

Diesel 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)
- DC TIG (GTAW)
- Air carbon arc (CAC-A)

500 X
- Rated: 8 mm (5/16 in.) carbons
- Capable: 9.5 mm (3/8 in.) carbons

600 X
- Rated: 9.5 mm (3/8 in.) carbons

**Output Range**
- 500 X CC: DC stick: 55–500 A, DC/TIG: 55–500 A
- 600 X CC: DC stick: 55–600 A, DC/TIG: 55–600 A

**Generator Output Rated at 104°F (40 °C)**
- 5,500 watts peak, 4,000 watts continuous

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

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**Designed for fleet owners** that demand the ultimate in reliability and performance.

**Three-phase rotating field generator** efficiently produces smooth DC weld output using 20 to 30 percent less fuel than a rotating armature-type DC generator.

**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.

**Quick and easy maintenance** with single-side access to oil level check, oil fill, oil filter, fuel filter and air cleaner.

**Remote toolless oil drain** allows oil to be drained without getting under the engine and reduces the chance of oil spillage.

**Hot Start™** provides positive stick electrode starts making it easy to start all types of electrodes and it also works great for bead tie-ins.

**HD powder coat** with zinc-rich primer protects sheet metal from rust and corrosion.

**Processes**

**Heavy-duty low-speed industrial diesel engines** are designed, built and proven to operate over 10,000 hours before the first basic overhaul.

**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.

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

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

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

**CSA, IEC and NEMA compliant for welders.** Degree of protection provided by enclosure IP23.

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

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**Miller Electric Mfg. LLC**
An ITW Welding Company
1635 West Spencer Street
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Appleton, WI 54912-1079 USA

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International Phone: 920-735-4554
International FAX: 920-735-4125

**MillerWelds.com**

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- [Twitter](https://twitter.com/)
- [LinkedIn](https://www.linkedin.com/)
- [ISO 9001 Quality Certification](https://www.iso.com/)

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Specifications (Subject to change without notice.)

<table>
<thead>
<tr>
<th>Model</th>
<th>Weld Mode/Process</th>
<th>Weld Output Range</th>
<th>Weld Output Rated at 40°C (104°F)</th>
<th>Max. Open-Circuit Voltage</th>
<th>Generator Output Rated at 40°C (104°F)</th>
<th>Dimensions***</th>
<th>Weight (without fuel)****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Blue 500 X CC</td>
<td>CC/DC (Stick/TIG)</td>
<td>55–500 A</td>
<td>Deutz and Perkins 400 A at 36 V, 100% duty cycle* 450 A at 38 V, 60% duty cycle 500 A at 30 V, 40% duty cycle</td>
<td>92</td>
<td>5,500 watts peak 4,000 watts continuous 1-phase, 34/17 A, 120/240 V, 50/60 Hz while welding</td>
<td>H: 1,092 mm (43 in.) W: 724 mm (28.5 in.) D: 1,654 mm (65.125 in.)</td>
<td>Perkins 404D.22: 701 kg (1,545 lb.)</td>
</tr>
<tr>
<td>Big Blue 600 X CC</td>
<td>CC/DC (Stick/TIG)</td>
<td>55–600 A</td>
<td>Deutz 500 A at 40 V, 100% duty cycle* 550 A at 34 V, 60% duty cycle 600 A at 30 V, 40% duty cycle</td>
<td></td>
<td></td>
<td></td>
<td>Deutz D2011L03i: 751 kg (1,655 lb.)</td>
</tr>
</tbody>
</table>

*Meets NEMA and IEC output ratings. **Perkins powered model with lowered ratings to meet CE sound ratings. ***Additional 178 mm (7 in.) to top of exhaust. ****Additional 86 kg (190 lb.) when fuel tank is full.

Control Panel

![Control Panel Diagram]

Additional Features

Proven, rugged rheostat control technology that has been in Miller engine drives for over 60 years. Contains no printed control boards. A stick/TIG switch optimizes open-circuit voltage for stick welding and allows the open-circuit voltage to be lowered for scratch start TIG welding. Provisions are provided to plug a RHC3GD34A remote control that will allow precise adjustment of amperage without walking back to the machine.
### Engine Specifications (Subject to change without notice.)

<table>
<thead>
<tr>
<th>Model</th>
<th>Engine Brand</th>
<th>Features</th>
<th>HP</th>
<th>Type</th>
<th>Engine Speeds</th>
<th>Capacities</th>
<th>Automatic Engine Shutdowns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Blue 500 X</td>
<td>Perkins 404D.22</td>
<td>EPA Tier 4i compliant, indirect-injected, liquid-cooled engine with rated sound levels of 73.2 dB at 7 m (97 Lwa). Right-side service access with intervals of 500 hours for oil and filters.</td>
<td>32.6</td>
<td>Four-cylinder, industrial, liquid-cooled diesel</td>
<td>Weld: 1,850 rpm</td>
<td>Fuel: 95 L (25 gal.) Oil: 8.5 L (9 qt.) Coolant: 8.5 L (9 qt.)</td>
<td>Low oil pressure, high coolant temperature, low fuel level</td>
</tr>
<tr>
<td></td>
<td>Deutz D2011L03i</td>
<td>EPA Tier 4i compliant, direct-injected, air/oil-cooled engine with full load sound levels of 76.8 dB at 7 m (101.7 Lwa). Right-side service access with intervals of 1,000 hours for oil and filters. Approved underground operation with the purchase of a MSHA (30 CFR part 7) certificate.</td>
<td>32.0</td>
<td>Three-cylinder, industrial, air/oil-cooled diesel</td>
<td>Weld: 1,850 rpm</td>
<td>Fuel: 95 L (25 gal.) Oil: 5.9 L (6.2 qt.) Coolant: Integrated oil</td>
<td>Low oil pressure, high coolant temperature, low fuel level</td>
</tr>
<tr>
<td>Big Blue 600 X</td>
<td>Deutz D2011L04i</td>
<td>EPA Tier 4i compliant, direct-injected, air/oil-cooled engine with full load sound levels of 76 dB at 7 m (101 Lwa). Right-side service access with intervals of 1,000 hours for oil and filters.</td>
<td>48.6</td>
<td>Four-cylinder, industrial, air/oil-cooled diesel</td>
<td>Weld: 1,850 rpm</td>
<td>Fuel: 95 L (25 gal.) Oil: 8.5 L (9 qt.) Coolant: Integrated oil</td>
<td>Low oil pressure, high coolant temperature, low fuel level</td>
</tr>
</tbody>
</table>

### Genuine Miller® Options

**Weld Ammeter and Voltmeter Kit**  
195131 Field  
Panel-mounted analog meters monitor welding output.  
*Installation time: 35 minutes*

**Battery Voltmeter**  
195454 Field  
Monitors battery-charging circuit.

**Polarity Reversing Switch Kit**  
043942 Field  
Changes DC polarity without the use of tools.  
*Installation time: 35 minutes*

**AC/DC Polarity Reversing Switch Kit**  
195095 Field  
Select AC output or DC polarity without the use of tools.
Genuine Miller® Accessories

**International Plug**
255416 Field
1-phase, 240 V, 16 A plug

**Engine Filter Kits**
246988 Field, For Deutz D2011
246985 Field, For Perkins 404
Includes all filters required for proper engine maintenance. Oil filter, primary and secondary fuel filter, and primary air filter.

**Spark Arrestor Kit**
195012 Field
Prevents particles from leaving the muffler 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.

**Protective Cover**
194683 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.*

**Stick (SMAW) Welding**

**Weld Leads**

2/0 Stick Cable Set, 15 m (50 ft.)
173851
Consists of 15 m (50 ft.) 2/0 electrode cable with holder, and 15 m (50 ft.) work cable with clamp. 350 A, 100% duty cycle.

2/0 Stick Cable Set, 30.5/15 m (100/50 ft.)
043952
Consists of 30.5 m (100 ft.) 2/0 electrode cable with holder, and 15 m (50 ft.) work cable with clamp. 300 A, 100% duty cycle.

**Remote Control**

RHC-3GD34A Remote Hand Control 041122
Allows for precise adjustment of amperage. Includes 6 m (20 ft.) cord.

**Plasma Cutting**

Spectrum® 375 X-TREME™ 907529
Comes complete with protective X-CASE™ (not shown). See literature PC/9.2.

**Dynasty® 210 Series**
For portable AC/DC TIG. See literature AD/4.81.

**AC TIG (GTAW) Welding**

**Cable Holder**
043946 Field
Saddle-bag-style cable holder. Convenient wrap-around storage of coiled cable for transportation. Stores 30.5 m 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.*
4 West Four-Wheel Steerable Off-Road Trailer 042801
A heavy-duty 1,166 kg (2,570 lb.) capacity trailer designed for use in mines, quarries, and other rough terrain. Has narrow 6.7 m (22 ft.) turning radius. Includes 76 mm (3 in.) lunette eye, universal hitch and safety chains.

HWY-225 Trailer 301338
A 1,225 kg (2,700 lb.) 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 50 mm (2 in.) ball hitch and 76 mm (3 in.) lunette eye.

Cable Tree 043826
Provides an area to conveniently wrap weld cables and extension cords.

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.

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

<table>
<thead>
<tr>
<th>Model</th>
<th>Gross Axle Weight Rating</th>
<th>Gross Vehicle Weight Rating</th>
<th>Net Payload</th>
<th>Height of Bed</th>
<th>Road Clearance</th>
<th>Track (Center to center of tires)</th>
<th>Standard Tires (Standard rating or P-size rating)</th>
<th>Dimensions</th>
<th>Net Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 West</td>
<td>907 kg/axle (2,000 lb./axle)</td>
<td>1,361 kg (3,000 lb.)</td>
<td>1,157 kg (2,550 lb.)</td>
<td>540 mm (21.25 in.)</td>
<td>203 mm (8 in.)</td>
<td>1,403 mm (55.25 in.)</td>
<td>B78-13</td>
<td>Length: 2,311 mm (91 in.)* (\text{Width: 1,556 mm (61.25 in.)})</td>
<td>195 kg (430 lb.)</td>
</tr>
<tr>
<td>HWY-225</td>
<td>1,588 kg (3,500 lb.)</td>
<td>1,360 kg (2,999 lb.)</td>
<td>1,225 kg (2,700 lb.)</td>
<td>483 mm (19 in.)</td>
<td>191 mm (7.5 in.)</td>
<td>1,270 mm (50 in.)</td>
<td>ST175/80R-13 Load Range D</td>
<td>Length: 2,680 mm (105.5 in.) (\text{Width: 1,435 mm (56.5 in.)}) (**)</td>
<td>127 kg (280 lb.)</td>
</tr>
</tbody>
</table>

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

### Mounting Specifications

A. 757 mm (29.812 in.)
B. 699 mm (27.5 in.)
C. 25 mm (1 in.)
D. 244 mm (9.625 in.)*
E. 1,181 mm (46.5 in.)*
F. 1,422 mm (56 in.)*
G. 1,654 mm (65.125 in.)
H. 14 mm (.562 in.) diameter

*With mounting brackets in center position. Dimensions vary with location of mounting brackets.

** Height: 1,270 mm (50 in.) \(\text{to top of exhaust}\) \(\text{Width: 724 mm (28.5 in.)}\) \(\text{mounting brackets turned in}\) \(781 \text{ mm (30.75 in.)}\) \(\text{mounting brackets turned out}\)
** Depth: 1,654 mm (65.125 in.)
Electrode Hot

Stick (SMAW) Basic Equipment

Scratch Start TIG (GTAW) Basic Equipment

Remote On/Off Required

Stick (SMAW) Basic Equipment
RHC-3GD34A 041122

Plasma Basic Equipment
Spectrum® 375 X-TREME™ 907529
## Ordering Information

<table>
<thead>
<tr>
<th>Equipment and Factory Options</th>
<th>Stock No.</th>
<th>Description</th>
<th>Qty.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Big Blue® 500 X CC</strong></td>
<td>907185</td>
<td>Deutz D2011L03i with engine gauges</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>907187</td>
<td>Perkins 404D.22 with engine gauges</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Big Blue® 600 X CC</strong></td>
<td>907193</td>
<td>Deutz D2011L04i with engine gauges</td>
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<tr>
<td><strong>Field Accessories</strong></td>
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<tr>
<td>Weld Ammeter and Voltmeter Kit</td>
<td>195131</td>
<td>For all models. Analog welding meters</td>
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<tr>
<td>Polarity Reversing Switch Kit</td>
<td>043942</td>
<td>For all models. DC polarity switch</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>195095</td>
<td>For all models. AC/DC polarity switch</td>
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<td></td>
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<tr>
<td>Battery Voltmeter</td>
<td>195454</td>
<td>For all models. Analog</td>
<td></td>
<td></td>
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<tr>
<td>International Plug</td>
<td>255416</td>
<td>1-phase, 240 V, 16 A</td>
<td></td>
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<tr>
<td>Engine Filter Kit</td>
<td>246988</td>
<td>Deutz D2011. Includes air, oil and fuel filters</td>
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<tr>
<td></td>
<td>246985</td>
<td>Perkins 404. Includes air, oil and fuel filters</td>
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<tr>
<td>Spark Arrestor Muffler Kit</td>
<td>19012</td>
<td>For all models. Horizontal externally mounted</td>
<td></td>
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<tr>
<td>Lockable Flame Arrestor Fuel Cap</td>
<td>043947</td>
<td>For all models. Padlock not included</td>
<td></td>
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<tr>
<td>Vandalism Lockout Kit</td>
<td>195118</td>
<td>For all models. Lockable front control panel and engine compartment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable Holder</td>
<td>043946</td>
<td>For all models. Stores up to 61 m (200 ft.) of 2/0 weld cable</td>
<td></td>
<td></td>
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<tr>
<td>Protective Cover</td>
<td>194683</td>
<td>For all models. Will not fit over machine with cable holder attached</td>
<td></td>
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<tr>
<td><strong>Stick Welding</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Weld Leads</td>
<td>173851</td>
<td>2/0, 350 A, 100% duty cycle, 15 m (50 ft.) stinger, 15 m (50 ft.) work clamp</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>043952</td>
<td>2/0, 300 A, 100% duty cycle, 30.5 m (100 ft.) stinger, 15 m (50 ft.) work clamp</td>
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<tr>
<td><strong>AC TIG Welding</strong></td>
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<tr>
<td>Dynasty® 210 Series</td>
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<td>See literature AD/4.81</td>
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<td><strong>Plasma Cutting</strong></td>
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<tr>
<td>Spectrum® 375 X-TREME™</td>
<td>907529</td>
<td>Includes X-CASE™. See literature PC/9.2</td>
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<tr>
<td><strong>Remote Control</strong></td>
<td></td>
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<tr>
<td>RHC-3GD34A Hand Control</td>
<td>041122</td>
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<tr>
<td><strong>Trailers and Hitches</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4 West Four-Wheel Steerable Trailer</td>
<td>042801</td>
<td>Trailer with lunette eye, universal hitch and safety chains. For off-road use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HWY-225 Trailer</td>
<td>301338</td>
<td>Trailer with lights, fenders and dual hitch. For highway use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable Tree</td>
<td>043826</td>
<td>Trailer-mounted cable holder for HWY-225</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-In-1 Document/Fire Extinguisher Holder</td>
<td>301236</td>
<td>Stores documents and holds a 5-pound fire extinguisher for HWY-225</td>
<td></td>
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</tr>
</tbody>
</table>

**Date:**

**Total Quoted Price:**

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