



Engine Drive Buyer's Guide

**For Welding and
Power Generation**

Table of Contents

Engine Drive Products Understanding Features and Benefits

	Page
Reliability	2
Welding Processes	3
Welding Amperage Requirements	4
Duty Cycle	5
Generator Power	6
Generator Power while Welding	7
Power Requirements to	
Run Tools and Motors	8
Plasma Cutters and Generator Power	8
Engine Options	9
Engine Drive Chart	10
Engines and Fuel Economy	12
Product Highlights	14

Understanding Features and Benefits

Picking the best engine drive isn't easy! Each model delivers a variety of features and benefits. Some offer a lower purchase price, while others reduce operating expenses and cost less over the long haul. For special applications, certain machines deliver superior results. To top it off, Miller recently introduced several new engine drives with benefits never before possible.

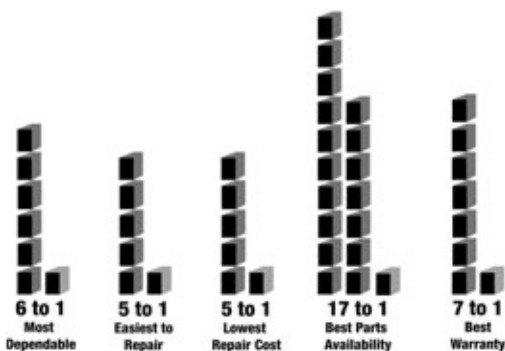
To help you choose an engine-driven welding generator, Miller Electric produced this Engine Drive Buyer's Guide. We hope this review of products, processes, selection criteria, application notes and common Q&A leads you to select an engine drive that satisfies you for years.

Reliability

We know you value reliability more than any other attribute. If a machine doesn't work, it affects your whole operation. That's why Miller designs and makes its engine drives so you can count on flawless operation day after day, year after year.

If you earn a living with your welding machine, check out these facts, taken from an independent, blind survey of welding service technicians:

Miller Rated Most Reliable by High Margins



Survey Respondents: "Miller is the only company I don't have warranty problems with," "Miller does an excellent job with their service and procedure booklets — their 1-800 number is a great resource," "I have worked with Miller for 35 years and they are the best by far."

Welding Processes



Stick Welding (SMAW): All Miller engine drives produce a DC constant current (CC) output for Stick welding. Every Miller machine offers a great Stick arc to satisfy the most demanding professionals.



DC TIG Welding (GTAW): TIG welding done in the field on steel, stainless and other ferrous metals requires a DC, CC arc. You can DC TIG weld with every Miller engine drive.



AC TIG Welding (GTAW): For TIG welding on aluminum and other non-ferrous metals, you need an AC output. Miller offers engine drives for making critical welds that meet code requirements, as well as for non-critical AC welding.



MIG and FCAW (Wire Welding/GMAW):

If you want to weld with solid or cored wires, consider an engine drive with DC constant voltage (CV) capabilities. While you can run cored wires by adding a voltage-sensing wire feeder to a CC engine drive, machines with CV capabilities deliver superior results. To start, they are much easier to fine tune, especially when welding with certain self-shielded wires in structural applications. In addition, you'll need CV capabilities if you want to run aluminum or small diameter hard wires for thin gauge material.



Miller offers engine drives with CV capabilities, as well as CC engine drives with factory and/or field installed CV options.



Gouging: Air Carbon Arc gouging puts a lot of stress on a machine. While you can do it with a smaller unit, engine drives offering at least 300 amps of power *at a high duty cycle* work best for gouging. If you need to remove a lot of metal, look for an engine drive with a peak output of at least 500 amps. This will let you run 3/8 in. diameter carbons, so you'll get the job done faster.

Amperage Requirements

Welding amperage requirements largely depend on the diameter and type of electrode you want to use. The following charts provide suggested operating ranges for common Stick, wire and carbon arc gouging electrodes. This helps you determine which electrode sizes you can run with a particular machine.

Stick dia.	3/32 in.	1/8 in.	5/32 in.	3/16 in.	1/4 in.
6010, 6011	40–85	75–125	110–165	140–210	210–315
6013	40–90	80–130	105–180	150–230	250–350
7018	60–100	110–165	150–220	200–275	320–400

Wire	.030 in.	.035 in.	.045 in.	.052 in.	1/16 in.
Tubular	—	—	15–36V 105–340A	15–36V 110–430A	15–40V 140–480A
Self-shielded flux cored	—	14–20V 50–120A	15–18V 70–160A	—	14–22V 146–322A
MIG	17–23V 50–200A	18–25V 50–225A	18–34V 85–355A	21–39V 150–500A	26–40V 250–610A

Wire	.072 in.	5/64 in.	3/32 in.	7/64 in.	1/8 in.
Tubular	22–36V 200–495A	23–33V 250–510A	24–36V 355–615A	—	26–32V 375–640A
Self-shielded flux cored	16–25V 130–350A	16–35V 145–545A	16–35V 200–525A	22–33V 310–625A	28–38V 400–600A

Current Requirements

Carbon Diameter	1/8 in. 3 mm	5/32 in. 4 mm	3/16 in. 5 mm	1/4 in. 6 mm	5/16 in. 8 mm
Min. Amps	60	90	200	300	350
Max. Amps	90	150	250	400	450

Carbon Diameter	3/8 in. 10 mm	1/2 in. 13 mm	5/8 in. 16 mm	Flat 3/8 in. 10 mm	Flat 5/8 in. 16 mm
Min. Amps	450	800	1000	250	300
Max. Amps	600	1000	1250	450	500

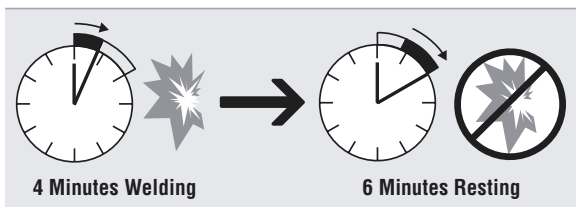
Duty Cycle

Duty cycle is the amount of time during a 10-minute period that an engine drive can continuously operate at its rated welding output without causing overheating damage to the system.

Taking the Heat. Miller runs duty cycle tests at 104° F (40° C) ambient temperature, which simulates hot summer conditions. 104° F is rated higher than any competitive machine. In side-by-side, real-world encounters at Gulf Coast refineries, Miller engine drives gouged all day long. Competitive units overheated and shutdown, causing work delays.

For applications requiring extensive arc-on time with large electrodes, choose a welder with a high duty cycle and high amperages.

40% Duty Cycle



Many Miller engine drives provide outputs higher than their 100% rating, but at a lower duty cycle. For instance, the Big Blue 402 produces a maximum of 600 amps, but has a 40% duty cycle with this output.

Note: Most Stick electrodes are consumed in less than two minutes, which means they require a 20% duty cycle. All Miller engine drive product specification sheets include duty cycle times.

No Cut Outs. Most Miller machines are rated at 60% duty cycle or higher. Most of these are rated at 100%, giving you full weld and generator power in the toughest environments.

Generator Power

Miller packs its engine drives with 120/240VAC generator power to run tools, lights, start motors and power equipment. In fact, tools perform better when run off Miller engine drives.

Full Speed Ahead. Never put up with slow tool speed, such as limited RPM on drills or saws. Miller engine drives provide full voltage for optimum performance and maximum tool life.

Full Voltage. Miller's minimum standard for rating generator power holds the voltage within 10% of 120/240V (within the ratings of most jobsite equipment).

Voltage-Regulated Power. Several Miller engine drives feature the same voltage-regulated power found in your house or shop, for example, Miller's TrailblazerPro 350 and PipePro 304. These machines maintain a constant 120/240V output no matter how much generator power you draw.

Continuous Power. To ensure continuous power in hot summer conditions, we place engine drives in a 104° F (40° C) test cell, and run them under load until internal temperatures stabilize. For example, the Trailblazer 301G runs at 9.5 kW for a minimum of 4 hours.

Toughest Test. Miller obtains its continuous generator power ratings (100% duty cycle) using the industry's most stringent guidelines: our own.

Peak Power. At Miller peak power refers to generator power beyond the "continuous" rating. You can use this temporary burst of power to start motors or plasma cut. To test peak power, we place engine drives in an 86° F (30° C) test cell and run them under heavy load for 30 minutes. We then put them under a peak load for a minimum of 30 seconds. If the voltage stays within 10% of nominal and the machine remains cool, we approve the peak rating.

Generator Power While Welding

All Miller engine drives provide simultaneous welding and generator power. This means that while one operator welds, others can run tools and lights. Miller is the clear choice when productivity counts.

Bobcat® Generation

Weld Current (Amps)	Total Power (Watts)	120V Receptacle (Amps available)	240V Receptacle (Amps available)
0	10,000	84*	42*
90	8000	66*	33
125	5200	43*	21
180	3500	29*	14
250	2200	18	9

*50A, 120/240 VAC receptacle. See owner's manual for additional information.

Several Miller engine drives deliver superior performance in *multiple-task* applications providing continuous generator power independent of weld settings. This means the operator who is welding with a product like the Trailblazer® DC/301 G can set the amperage control less than maximum while other operators can still draw on full auxiliary voltage (120/240 V).

Trailblazing Power

Weld Current (Amps)	Total Power (Watts)	120V Receptacle (Amps available)	240V Receptacle (Amps available)
300	1000	10	5
250	3500	31	15
200	5200	46	23
150	6700	60	30
100	8000	70	35

When welding at an average of 150 amps, the Trailblazer® DC, 301 G and 301D still deliver 6,700 watts of power to run lights and tools. Some competitive engine drives cannot provide any generator power under this welding load.



Power Requirements To Run Tools and Motors (Approximate)

Tool/Motor	Rating	Starting Watts	Running Watts
Hand drill	1/4 in., 1/2 in.	350, 600	350, 600
Circular saw	8-1/4 in.	1400	1400
Air compressor	1-1/2 HP	8200	2200
Flood lights	Metal Halide	313	250
Sump pump	1/3 HP, 1/2 HP	1300, 2150	800, 1050
Farm-duty motors	1/3 HP 1-1/2 HP 5 HP	1720 8200 23300	720 2200 6800
Microwave oven	625 watts	800	625
Refrigerator	1/3 HP	2150	750

Plasma Cutters and Generator Power

Tired of dragging around a bulky oxy-fuel rig and fed up with the slow cutting speeds of saws, cut-off wheels and shears? That's why many contractors have switched to plasma machines for cutting stainless steel, aluminum, mild steel or any conductive metal. Miller Spectrum series of plasma machines cut substantially faster than any other option — and they can run off your engine drive's generator power.

Miller designed the Spectrum plasma cutters listed below to operate smoothly using generator power.

Spectrum® 2050. With Auto-Line.™ To cut metal up to 3/4 in., pair a 10 kW engine drive with the Spectrum 2050 at 50 amps. To get its full 55 amp output — and cut metal up to 1 in. thick — use 12 kW generator power. This plasma cutter weighs only 70 lb., so it's easy to move.

Spectrum® 625. Can be powered by any Miller welding generator with power output of 8 kW or more. Can produce a 5/8 in. quality cut and has loads of features that make your cutting needs a breeze.

Spectrum® 375 CutMate™. For steel less than 3/8 in. thick, consider using the Spectrum 375 CutMate. It only needs 4 kW of generator power to produce its maximum cutting output.

Following are a few engine drive products and their plasma cutting capabilities when linked to a Spectrum® 2050.

Engine drive product	2050's steel quality cut	2050's output setting	Gen. power supplied
Big 40®	3/4 in.	50A	15kW
Big Blue® 402	3/4 in.	50A	20kW
Miller Du-Op™	3/8 in.	35A	4kW
PipePro™ 304	3/4 in.	50A	12kW
Trailblazer® Pro 350D	3/4 in.	50A	12kW
Bobcat 250NT	3/4 in.	50A	10kW

Smooth Cutting. Tired of plasma cutters that are highly susceptible to erratic arcs, shut downs or failures when operating off engine drives? Then turn to the Spectrum series from Miller. Their Auto-Line, Auto-Link and extra-wide line voltage compensation features ensure consistent power for smooth cutting.

Engine Options

Which engine works best for you? The answer may depend on brand preference, fuel costs and consumption, the need to match other equipment, convenience of local service and meeting safety* regulations (such as those mandating diesel or LP fuel in hazardous environments).

Choice: Miller gives you the choice of powering your welding generator with the industry's best-known engines: **Kohler, Onan, Kubota, Deutz, Perkins, CATERPILLAR, and Honda.**

Engineers from Miller Electric and engine manufacturers work together to optimize the engine for use in a welding generator. This improves the performance of both the engine and the welding generator.

True Blue® Confidence. Miller covers all welding-related components under its True Blue 3-Year Warranty. Engine manufacturers separately warrant the engine.

Engine Drive Chart

Product	Amp Range/ Output	Dimensions	Weight	Standard Auxiliary Power	Engine Brand/ HP/Gas/Diesel
2-man Portable					
Blue Star® 3500	40–140	H: 20-3/4" W: 22-3/4" D: 31-1/4"	201 lb	3.5 kW	Honda/9 HP/ gas, Kohler/ 8.5 HP/gas
Blue Star® 6000	40–180	H: 20-3/4" W: 22-3/4" D: 31-1/4"	253 lb	6 kW	Honda/13 HP/ gas, Kohler/ 12 HP/gas
Small-Frame					
Bobcat™ 225 NT	50–225 AC/CC 50–210 DC/CC	H: 33" W: 18-3/4" D: 45-1/2"	512 lb	10 kW	Kohler/20 HP/ gas
Bobcat™ 3 Phase	50–225 AC/CC 50–210 DC/CC	H: 33" W: 18-3/4" D: 45-1/2"	525 lb	10 kW-1Ø 11 kW-3Ø	Kohler/ 20 HP/gas
Bobcat™ 250 D NT	40–250 AC 40–250 DC/CC	H: 33" W: 18-3/4" D: 48"	690 lb	10 kW	Kubota/ 19 HP/diesel
Bobcat™ 250 NT	40–250 AC/CC 40–250 DC/CC	H: 33" W: 18-3/4" D: 45-1/2"	539 lb	10 kW	Kohler/ 20 HP/gas, Onan/ 20 HP/gas
Miller Legend® 301 G	20–300 DC	H: 33-1/2" W: 18-3/4" D: 46"	560 lb	5.5 kW	Kohler/20 HP/ gas
Trailblazer® DC	20–300 DC	H: 33" W: 18-3/4" D: 45-1/2"	560 lb	10 kW	Kohler/ 20 HP/gas
Trailblazer® 301 G	35–225 AC 20–300 DC	H: 33" W: 18-3/4" D: 45-1/2"	560 lb	10 kW	Kohler/Onan/ 20 HP/gas
Trailblazer® 301 D	35–225 AC 20–300 DC	H: 33" W: 18-3/4" D: 48"	690 lb	10 kW	Kubota/ 19 HP/ diesel
Mid-Size Frame					
Trailblazer®Pro 350 D	35–250 AC 20–350 DC	H: 30" W: 24" D: 59-1/2"	998 lb	12 kW	Kubota/ 26 HP/diesel
PipePro™ 304	5–400	H: 30" W: 24" D: 59-1/2"	910 lb	12 kW	Kubota/ 26 HP/diesel
Big Blue® 251D	40–400	H: 40-1/2" W: 24-5/8" D: 56"	1,475 lb	3 kW	Deutz/ 29 HP/diesel
Large Frame					
BIG 40®*	20–550	H: 43" W: 28-1/2" D: 64-7/16"	1,545 lb	4 kW 15kW**	CAT/33HP/ diesel
Big Blue® 302*	20–500	H: 43" W: 28-1/2" D: 64-7/16"	1,545 lb	4 kW 15 kW**	Perkins/33 HP/ diesel, Deutz/ 30 HP/ diesel
Big Blue® 402*	20–600	H: 43" W: 28-1/2" D: 64-7/16"	1,695 lb	4 kW 20 kW**	Perkins/45 HP/ diesel, Deutz/ 44 HP/ diesel
Big Blue® 502*	20–600	H: 43" W: 28-1/2" D: 64-7/16"	1,785 lb	4 kW 20 kW**	Deutz/42 HP/ diesel
Big Blue® Turbo	20-750	H: 43" W: 28-1/2" D: 67-1/2"	1,755 lb	5.5 kW	Turbo Deutz 64 HP/ diesel
Miller Du-Op™	15–600	H: 47-5/8" W: 31-1/4" D: 60-1/2"	2,005 lb	4 kW	Deutz/41.5 HP/ diesel
Big Blue® Air Pak™	20–750	H: 43" W: 28-1/2" D: 67-1/2"	1,931 lb	5.5 kW 20 kW**	Turbo Deutz/ 64 HP/ diesel

*CC-only model also available.

** Deluxe Models

*** With Voltage Sensing Feeder Only



Miller.

10

Stick	TIG	MIG	Flux Cored	Gouging (Carbon Size)	Special Features	2003 List Price, \$U.S.
X					Portable, capable of DC TIG	\$1,937
X					Portable, capable of DC TIG	\$2,438
X	DC TIG				Durable, multi-purpose, 10,000 watts (peak) generator power; capable of MIG applications	\$3,357
X	DC TIG		X	3/16"	Back up power for pivot irrigation.	\$3,499
X	DC TIG		X	3/16"	For rugged use especially in Stick, FCAW and DC TIG application; 10,000 watts (peak) generator power; capable of MIG applications	\$6,977
X	DC TIG		X	3/16"	For rugged use especially in Stick, FCAW and DC TIG application; 10,000 watts (peak) generator power; capable of MIG applications	\$3,487
X	DC TIG	X***	X***	3/16"	Quiet, low-speed, fuel efficient	\$4,377
X	DC TIG	X	X	3/16"	Professional's choice for multi-process welding; flawless arc performance	\$3,877
X	Both AC and DC TIG	X	X	3/16"	Professional's choice for multi-process welding; flawless arc performance	\$4,177
X	Both AC and DC TIG	X	X	3/16"	Professional's choice for multi-process welding; flawless arc performance	\$7,977
X	Both AC and DC TIG	X	X	1/4"	Professional's choice, for multi-process welding with higher outputs	\$9,977
X	DC TIG	X	X	1/4"	XMT arc quality and reliability within an engine drive unit; can also run as electric unit	\$11,977
X	DC TIG			1/4"	Rugged, reliable unit, yet compact for RIG use	\$10,080
X	DC TIG AC TIG**	X		5/16"	Arc Drive technology for active DIG control in Stick	Starting at \$11,350
X	DC TIG	X	X	5/16"	Multiple engine and process selections make this ideal choice for construction, offshore and rental	Starting at \$10,366
X	DC TIG	X	X	3/8"	Multiple engine and process selections make this ideal choice for construction, offshore and rental	Starting at \$12,052
X	DC TIG	X	X	3/8"	Multiple engine and process selections make this ideal choice for construction, offshore and rental	Starting at \$11,846
X	DC TIG	X	X	1/2"	High amp output for heavy-duty applications	\$18,256
X	DC TIG	X	X	3/8"	Two operators, one engine - lower costs and maintenance	\$18,593
X	DC TIG AC TIG**	X	X	1/2"	All-in-one welder/generator/air compressor	\$22,049



Engines and Fuel Economy

When selecting an engine drive, remember that fuel efficiency provides big savings and a fast payback. Miller's fleet of engine drives are the most fuel-efficient models available.

All engine options that Miller uses are designed for 1800 or 3600 RPMs, both of which have outstanding fuel efficiency compared to competitive products. In fact, Miller's PipePro™ 304, when welding at idle, is the most fuel efficient diesel engine drive welding power source available.

Low Speed Savings. Miller specifically designed its Miller Legend® NT to provide welding and/or generator power at low speed (1800 RPM). This reduces fuel consumption by 15 to 50% — that's a \$600+ annual savings!

HP and Fuel Efficiency. Compared to some other machines, Miller diesels produce an equivalent weld output using an engine 25 to 30% smaller. This saves you money. In fact, one contractor building a large petrochemical plant with a large fleet of Big Blue engine drives conservatively estimated fuel savings of \$3,000 per day.

Some Miller engine drives also feature an automatic idle mode. This lowers RPM levels when no demand is being placed on the machine, saving fuel and reducing noise. So that you can compare cost of operation, Miller now includes a fuel consumption chart on its engine drive spec sheets (for a spec sheet, visit www.MillerWelds.com, call 1-800-4-A-MILLER or see your distributor).

Diesel Dividend. Many people invest in diesel engines because of their fuel efficiency. They cost substantially more than a gas engine, but cost less to operate over the long-term. Safety regulations often dictate using diesel engines in hazardous environments (e.g., petrochemical plants, offshore oil platforms). Whatever your choice, Miller offers engine options to meet your needs.

Examples:

Bobcat 250 NT: On a typical job using 1/8 in. 7018 electrodes (125 amps, 40% duty cycle), you can expect to use an average of 0.8 gallons of fuel per hour.



PipePro 304: With its patented weld-at-idle feature while welding at 150 A at 40% duty cycle using 5/32 in. 7018 electrode, the PipePro averaged 0.4 gallons per hour.



Big Blue 302: On a typical job using 5/32 in. 7018 electrodes (150 amps, 40% duty cycle), you can expect to use an average of 0.522 gallons of fuel per hour.



Product Highlights

Blue Star® 3500/6000

Portable, compact

- 226 lb.
- Protected by durable steel frame

Generator power for versatility

- Plenty of power to run lights, power tools and household appliances.

Very good DC-Stick performance

- Single-range amperage control for quick and easy setting



Bobcat™ 225 NT and Bobcat™ 3 Phase

Cost effective multiple-process machine

- Choice of AC/DC weld output.
- 10,000 watts (peak) generator power
- Simultaneous welding and power (AC power is reduced while welding)
- Enclosed engine is protected from accidental impact
- 10 gallon fuel tank for long run times
- Bobcat 3 Phase provides 11,000 watts of 3-phase (480 V) for irrigation pivot systems and 10,000 watts of 1-phase for your house, barn, or on the job tools.



Bobcat™ 250 NT (Gas, LP or Diesel)

Designed for rugged use in Stick, FCAW, and DC TIG applications.

Also capable of MIG with argon-mixed gas and non-critical AC TIG (no remote). 10,000 watts (peak) cranks out plenty of power for tools and lights.

- Bulletproof technology eliminates the use of complicated circuit boards.
- 250 amps of AC or DC weld output for Stick or TIG
- 250 amps at 28 volts, 100% duty cycle for MIG and FCAW (275 amps at 25 volts 60% duty cycle)
- Industry-leading 10,000 watts (peak) generator power
- 5,200 watts available even while welding at 125 amps
- **NEW! Kubota 19 HP Diesel engine.** Kubota is a world-standard for small diesel engines. Engine provides automatic low oil pressure and high coolant temperature shutdowns.



Miller Legend® 301 G

Low RPM generator power and weld speeds make this air-cooled engine drive unique. Great for service/maintenance trucks, in-plant use, and construction (especially in residential areas).

- 1800 RPM generator power uses up to 50% less fuel and produces 1/4 of the noise.
- Multispeed weld output produces up to 220 amps at 3000 RPMS for reduced noise and up to 300 amps at 3600 RPMS for large diameter wires or CAC-A.
- Premium multiprocess weld performance.
- Standard 14-pin receptacle.



Trailblazer® Series

- Trailblazer® DC
- Trailblazer® 301 G
- Trailblazer® 301 D

The Trailblazer's legendary four-pole rotor and 3-phase weld output produces the smoothest most stable arc in its class. Some of the reasons that the Trailblazer is the professional welder's choice are:

- Flawless Stick, MIG, Flux-Cored, and AC/DC TIG arc performance
- Engine Save Start (gas) feature shifts the engine from run speed to idle speed 3-4 seconds after start-up to decrease fuel consumption, extend engine life and reduce noise
- Automatic idle slows engine speed to save fuel and reduce noise while not welding
- 10,000 watts (peak) of generator power
- Automatic start at Idle (diesel engine) idles engine immediately when started to extend engine life and reduce fuel consumption and noise.



Trailblazer® Pro 350 D

Same premium Trailblazer arc, more power

- 350 amp weld output
- Runs 1/4 in. Stick rods and carbons, 5/64 in. cored wires
- Arc-Drive for E6010 pipe welding
- Designed for the professional



12,000 watts generator power

- Voltage-regulated for constant 120/240 V
- Excellent motor starting
- Compact and lightweight (1,029 lbs)

PipePro™ 304

World's first engine-driven inverter

- Unbeatable arc in all DC weld processes
- The new standard for downhill pipe welding
- Best engine drive in the world, period



Most compact engine drive in its class

- Fits sideways in back of standard pickup
- Low profile so driver can use rearview mirror
- Weighs 910 lb.
- Quiet operation

12,000 watts generator power

- Pair with XMT for affordable on-site weld shop
- Run Spectrum 3080 plasma cutter

Dual Power option allows you to operate on engine OR electric input power

Welds to 200 amps at idle and automatically switches to high speed for more power without any arc change

Miller Du-Op™

Dual operator
welding machine

- Two independently controlled arcs
- Reduces number of machines on jobsite
- Decreases transportation, maintenance costs
- Multi-process capabilities
- Includes adjustable DIG and digital weld meters



BIG 40®

Powered by
CATERPILLAR 3024
diesel engine

Excellent Stick/TIG/
MIG machine

- Arc-Drive for E6010 pipe welding
- Uncompromised 7018 performance
- Factory option AC/DC polarity switch provides 350 amps of AC weld power for TIG welding aluminum



Best reliability and simple-to-use

Big Blue® 251D

Excellent Stick machine in the most environmentally adverse conditions

- Smallest 1800 RPM diesel available

Best reliability, simple-to-use

- 1000 hours between oil changes with Deutz F3L 1011 engine



Big Blue® 302/402/502

Excellent Stick/TIG machines

- Arc-Drive for E6010 pipe welding
- Uncompromised 7018 performance

CV option for superior flux cored welding performance

Generator power options up to 20 kW

Best reliability, simple-to-use

- 1000 hours between oil changes
- 10,000 hours before first basic overhaul
- 25 gallon fuel tank

Environmental stainless steel model available on the Big Blue 502 — for corrosion resistance in the most caustic environments





Big Blue® Turbo

High altitude, high output multiprocess welder provides a superior arc.

- Deutz turbocharged four-cylinder diesel engine provides ample power at high altitudes.
- Quiet — at only 70 dB (95 Lwa) when idle, 79 dB (104 Lwa) at maximum output. Improves work site communications.
- 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.



Big Blue® Air Pak™

World's most powerful, reliable welder/generator/air compressor

- A go anywhere solution to field jobs requiring welding, gouging or cutting, and AC power generation
- 600 amps/44 volts at 40% Duty Cycle
- Excellent arc performance in all processes



Built-in Ingersoll-Rand air compressor

- Produces 100 PSI at 60 CFM, 100% Duty Cycle
- Belt-driven with automatic belt tensioner

Arc-Drive Domination. According to independent professional welders who tested them, Miller engine drives with Arc-Drive active dig control beat classic DC generators in head-to-head competitions with both 6010 and 7018 electrodes. For pipe and structural steel work, only Miller combines performance, reliability and operating efficiency.



**For detailed literature, a full-line catalog or
to locate your nearest distributor,
call 1-800-4-A-MILLER (1-800-426-4553)**

For detailed specification sheets or to locate your
nearest Miller distributor, call:

1-800-4-A-Miller
(1-800-426-4553)

www.MillerWelds.com



An Illinois Tool Works Company
©2003 Miller Electric Mfg Co.