

NEW!

Air Vantage[®] 500

It's three in one - Welder Generator and Air Compressor

When you need it all, consider the rugged Air Vantage[®] 500 for railroad, mining, general maintenance & repair, and heavy duty construction. The new belt driven VMAC[®] rotary screw compressor pumps out plenty of air for arc gouging with up to 9.5 mm carbons, plasma cutting or almost any air tool. A powerful 500 amps at 100% duty cycle is enough for most stick, TIG, MIG or flux-cored welding project. The precision arc starting provided by Lincoln Electric Chopper Technology[®] and will make any operator a better welder.

Simple controls and Chopper Technology[®] deliver the low maintenance, long servicelife, easy operation and the great arc performance every owner demands in these environments.

Plenty of AC generator power - up to 12,000 watts of 1-phase is standard. Stainless steel roof and side panels provide added durability and corrosion-resistance. The Cummins[®] B3.3 liquid cooled diesel engines will keep you running and working for a long time.



Processes

Stick, TIG, MIG, Flux-cored, Gouging

Description



Advantage Lincoln

- **Rotary Screw Compressor**
 - New belt driven VMAC[®] rotary screw compressor rated at 60 CFM, 100PSI, 100% duty cycle. Delivers abundant air for arc gouging with up to 9.5mm carbons, plasma cutting (plasma cutter sold separately) and air tools such as an impact wrench or needle gun.
- **Simple to operate**
 - Select one of five Process Modes, including CC-Stick, CC-Pipe, CC-Gouging, Touch-Start[™] TIG or CV Wire, and then dial in the desired output.
- **Optimised CC-Stick mode**
 - CC-Stick mode is optimised for general purpose and E7018 low hydrogen electrodes.
- **Arc control adjustment**
 - Produces a soft, buttery arc or a more forceful, digging arc to suit your requirements.
- **12kVA of auxiliary power**
 - 2 x 240V, 15A IP66 rated outlets for powering tools, grinders and lighting.

- **Digital Volt/Amp meters**
 - Built-in preset function makes it easy to precisely set your procedures.
- **Arc gouging**
 - Arc gouging with up to 9.5mm carbons.
- **Full instrumentation**
 - Fuel, oil pressure, engine temperature gauges and hour meter keep you on top of monitoring engine performance.
- **Cummins[®] B3.3 diesel engine**
 - 56 horsepower, liquid-cooled, 4 cylinder Cummins[®] B3.3 engine, includes automatic engine idler for greater fuel economy and reduced noise.
- **VRD Device**
 - Factory-fitted, built-in voltage reduction device (VRD) offers additional protection for the operator. The VRD operates in the CC mode reducing the OCV to a safer <20 volts, increasing operator safety when welding is performed in environments with increased hazard of electric shock.
- **Stainless steel enclosure**
 - Standard stainless steel roof, side panels and engine access door deliver added protection and durability.
- **Lincoln Electric's 3-year, parts and labour warranty**
 - Engine is warranted separately by the manufacturer.

Order

K32012-1

Air Vantage[®] 500

TECHNICAL SPECIFICATIONS

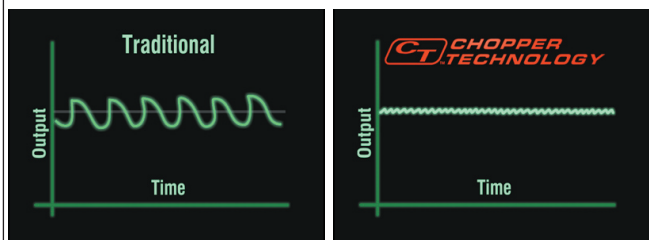
Model	Output Range	CV Output	AC Aux Power	Rated Output*	Engine Model	No of Cylinders	HP & Speed (rpm)	Weight Kg	Dimensions H x W x D mm
K32012-1	Continuous Control 30-575 Amps CC/CV Range 15 - 250 Amps Touch Start [™] TIG Range	14-40 volts	12kW Receptacles 2 x 240V, 15A IP66	500A, 40V @ 100% 550A, 36V @ 60% 575A, 35V @ 50%	Cummins [®] B3.3 liquid cooled diesel engine 12V electric start	4	56 @ 1800	785	1260 x 831 x 1603


PERFORMANCE

Arc Performance

- **500 amps @100% duty cycle** and capable of 525 amps at 60% duty cycle with all the benefits of Chopper Technology®. All ratings are at temperatures of 40°C.

WHAT IS CHOPPER TECHNOLOGY®?



Patented and award-winning Lincoln  Chopper Technology® delivers superior DC arc welding performance for general purpose stick, Downhill Pipe, DC TIG, MIG, cored-wire and arc gouging.

Benefits of Chopper Technology® include:

- Easy arc starting
 - Smooth arc action
 - Low spatter levels
 - Excellent bead appearance
- **Arc Gouging with up to 9.5mm carbons**, Arc gouging mode is optimised to deliver a more powerful gouging arc, including VRD functions.
 - **VRD (Voltage Reduction Device)** reduces OCV (open circuit voltage) in CC-stick welding mode for added safety.
 - **CC-Stick mode is optimised** for general purpose stick using E7018 low hydrogen electrode.
 - **Built-in “hot” start** for easier starts and restrikes which minimises the electrode “sticking” to the work.

- **Standard Touch-Start™ DC TIG welding**, not scratch start, for easy arc starting that avoids tungsten contamination and the use of high-frequency equipment.
- **Excellent CV wire welding** with cored-wire and MIG (CO₂ and mixed gas). 2.4mm E70T-6 up to 260 IPM, 27V. Includes reduced OCV >20 volts for improved safety with across-the-arc feeders.

WHAT IS TOUCH-START™ TIG?

Touch-Start™ TIG uses a very low voltage to sense when the tip of the tungsten electrode is touched to the work piece. When this occurs, a complete circuit is established. When the tungsten is then raised from the work piece, the circuit senses a change in voltage and initiates the appropriate welding current and voltage to support the TIG welding process.

Enjoy the added benefits of Lincoln’s Touch-Start™ TIG when DC TIG welding. Not only do you avoid tungsten contamination when arc starting, but you also don’t need extra high frequency equipment.

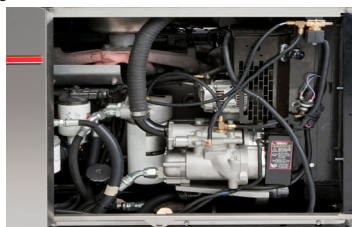
WHAT IS VRD?

The VRD (Voltage Reduction Device) provides additional safety in the CC-Stick weld mode, especially when working in an environment with a higher risk of electrical shock such as wet areas and hot, humid sweaty conditions. The VRD reduces the OCV (open circuit voltage) at the welding output terminals to less than 32 volts DC when not welding.

Indicator lights monitor the voltage: green for less than 32 volts while not welding, and either red (greater than 32 volts) or green while welding, depending on the actual voltage of the arc.

AIR COMPRESSOR PERFORMANCE

- **VMAC® belt driven rotary screw compressor** rated at 60CFM, 100 PSI, 100% duty cycle delivers abundant air for carbon arc gouging, plasma cutting (plasma cutter sold separately) and air tools such as an impact gun.



VMAC® Belt driven compressor

- **Belt driven compressor features** separate hour meter for monitoring service interval, on/ off switch to run only when required.
- **Large Heavy duty air filter** externally mounted for easy servicing. Suitable for harsh dusty environments.
- **Air shut off valve** can easily be closed for connecting and disconnecting an air hose. Valve is located in recessed area below control panel for convenient access and protection against accidental impact.

- **Automatic compressor shutdown for high compressor temperature.** Indicator light turns on for this condition.



Air shut off valve

- **Compressor maintenance items such as filters are easily accessed** in the single-side-service engine compartment. Drain connection for valve and compressor oil located in the base of engine compartment. 500-hour maintenance intervals for servicing of the system.

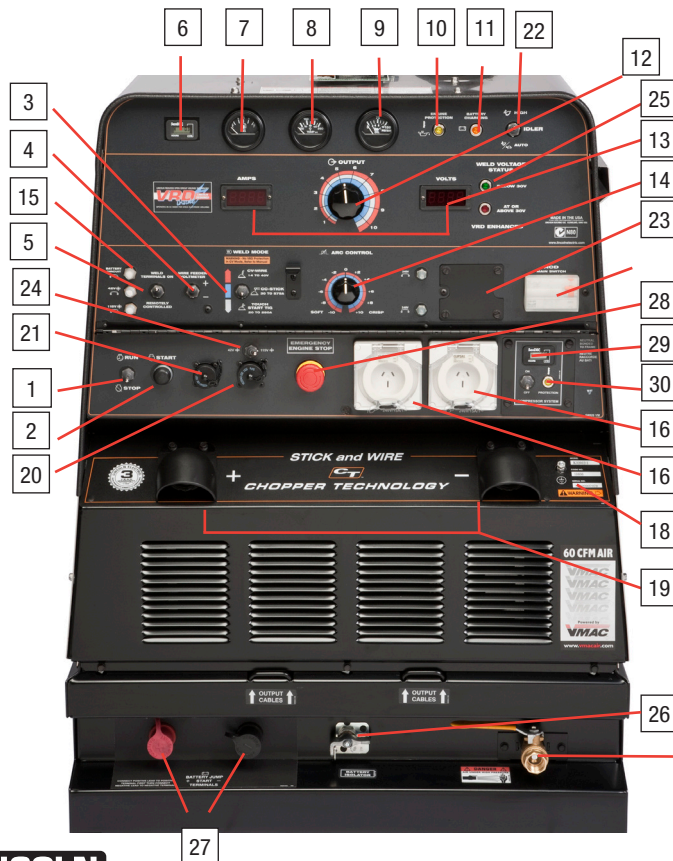
FEATURES

- **Large 95 litre fuel tank** provides run time for an extended day – 12 hours of welding at 500A / 40V / 100% duty cycle output or 28 hours at high idle.
- **Simple controls** – Keep training time to a minimum with the straight forward control panel of the Air Vantage® 500. The flip-down control panel door keeps less frequently used dials out of the way.
- **Output at welding terminals controlled by electronic contactor** - Can be switched to “Weld Terminals On” or to “Remotely Controlled”.
- **Automated remote control capability** – Output control is automatically switched from the machine to the remote mode when a remote device is connected. (Standard 6 pin connector).
- **14-pin connector for Lincoln wire feeders** LF-72, LF-74 and LN™-8. Also compatible with the NA-3 Control, LT-7 Tractor, Multi-Weld® 350 and LN™-25 PRO Dual.
- **12-Volt battery jump-start/battery charge feature is standard.** Use cable connection studs to jump-start or charge a 12 volt utility truck battery with up to 800 cold-cranking amps. Alternatively, use the studs to jump-start the Vantage® 580. Covered output studs located in recessed area below control panel for convenient access and protection against accidental impact.
- **Sliding Engine-Access Door** - Lockable engine-access door slides open for easy access in tight spaces.
- **Lockable battery disconnect** switch provides lockout/tagout capability.
- **Oil drain valve and tube** to direct used engine oil away from base into pan.
- **Patented lockable radiator cap access door** to prevent radiator tampering is standard.
- **Sound rating** - No load 76 dBA @ 7m, Loaded 80 dBA @ 7m

QUALITY AND RELIABILITY

- **Printed circuit boards are trayed and potted** to provide a robust environmental shield.
- **Simple wire harnessing** keeps connections to a minimum for greater reliability. Lead and harness strain reliefs on all control connections help ensure trouble-free performance.
- **Engine protection system** includes automatic shutdown for low oil pressure, high engine temperature or low engine alternator voltage.
- **Indicator light** turns on for low oil pressure or high engine temperature. A second indicator light turns on if the engine battery charging system malfunctions
- **240V outlets** are IP66 rated and RCD protected.
- **Circuit breaker protection** on the battery ignition system provides added component protection.
- **Engine camshafts** are gear driven – no timing belt maintenance.
- **Closed breather system** to keep the engine compartment and ground clean. This system eliminates oil mist from collecting inside the engine compartment, especially on surfaces that would lower engine cooling efficiency.
- **Self-bleeding engine** simplifies startup if your fuel tank runs dry. Manual fuel line bleeding is usually not necessary.
- **Cummins® B3.3 belt driven engine** - no timing belt maintenance.
- **3-year, Lincoln parts and labour warranty.** (Engine is warranted separately by the manufacturer.)

KEY CONTROLS



1. Run/Stop Switch
2. Start Pushbutton
3. Welding Terminals Control Switch
4. Wire Feeder Voltmeter Polarity Switch
5. Weld Mode Selector Switch
6. Hour Meter
7. Fuel Level Gauge
8. Engine Temperature Gauge
9. Oil Pressure Gauge
10. Engine Protection Light
11. Engine Battery Charging Light
12. Output Control Dial
13. Digital Amps and Volts Output Meters
14. Arc Force & Inductance Pinch Control Dial
15. Circuit Breakers
16. 240 Volts
17. Compressor Outlet Valve
18. Ground Stud
19. Covered Weld Output Terminals + and -
20. 14-Pin Wire Feeder Connector
21. 6-Pin Remote Control Connector
22. Idler Switch
23. RCD
24. 42V/115V Wire Feeder Voltage Switch
25. VRD indicator lights
26. Battery isolator Switch
27. Battery Jumper Terminals
28. Engine stop
29. Hour Meter - Compressor
30. Compressor on/ off
31. External Air Filter (not shown)

STICK OPTIONS

Welding Leads

Electrode lead 50mm² 10m c/w twist-lock holder

Order KA1452-8

Work return lead 50mm² 9m c/w work clamp

Order KA1452-7

Pigtail 50mm² c/w lug & female mechconnector

Order KA1452-1

Electrode lead 70mm² 10m c/w twist-lock holder

Order KA1452-10

Work return lead 70mm² 9m c/w work clamp

Order KA1452-9

Extention lead 70mm² 10m c/w male & female mechconnector

Order KA1452-4

Pigtail 70mm² c/w lug & female mechconnector

Order KA1452-12



Remote Output Control

Permits remote adjustment of output.

Order K857 8.5m lead & 6 pin plug
K857-1 30m lead and 6 pin plug

WIRE FEEDER OPTIONS



LF-72 Wire Feeder

A heavy-duty, semi-automatic wire feeder designed for CV MIG and FCAW welding.

Order K2327-7



LN™-25 PRO Wire Feeder

Portable CC/CV unit for flux-cored and MIG welding. Includes gas solenoid & internal contactor.

Order K2613-1A1 includes bonus K126 gun
K2613-1A2 includes bonus Magnum® 400 gun



Magnum® 350 Innershield® Gun (for LN™-25 PRO)

For self-shielded wire with 4.5m cable. For 1.7 - 2.4mm wire. Now with replacable liner.

Order K126-12

TIG OPTIONS



Powercraft™ PC26G TIG Torch

Air-cooled 200 amp torch (2 piece) equipped with valve for gas flow control. 7.6m length.

Order PC 26FS-8I-2



Foot Amptrol™

Provides 7.6m of remote output control for TIG welding. (6 pin plug connection).

Order K870



Hand Amptrol™

Provides 7.6m of remote current control for TIG welding. (6 pin plug connection). Velcro straps secure torch.

Order K963-3 (one size fits all TIG Torches)



Medium Welder Trailer

For heavy-duty road, off-road, plant and yard applications and includes wheeled jack.

Order K2637-1 Trailer
K2639-1 Mud guard



Spark Arrester Kit

Easily mounts to standard muffler.

Order K1847-1

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company® is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric® for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time.

Lincoln Electric® is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric® is a responsible manufacturer, but the selection and use of specific products sold by Lincoln Electric® is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric® affect the results obtained in applying these types of fabrication methods and service requirements.

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