COMPACT, MULTI-PROCESS, DESERT DUTY™ RATED

Vantage® 500-I

Shown K3385-1
K3385-2

KEY FEATURES

If you are looking for a rugged, reliable and capable welder for demanding construction, pipe or repair applications, take a close look at these Vantage® 500-I models..

- Compact Case with Stainless Steel Enclosure
- Multi-Process Welding, Separate Arc Gouge Mode
- Desert Duty™ Rated
- Plenty of AC Generator Power
- Emergency Stop Switch

Processes »
Stick, TIG, MIG, Flux-Cored, Gouging

Output »

CC CV | DC | 19 kW

Input »

Product Number »
K3385-1
K3385-2

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LINCOLN ELECTRIC

FEATURES

- **Compact Case with Stainless Steel Enclosure**
  - One of the most compact 500 amp machines available.
  - Standard stainless steel roof, side panels and engine-access door deliver added protection and durability.
- **Multi-Process Welding, Separate Arc Gouge Mode**
  - Select one of five process modes, including CC-stick, downhill pipe (for stick), DC Touch Start TIG®, CV-wire, or arc gouging mode which maximizes output with up to 8.0 mm carbon rods.
- **Desert Duty™ Rated**
  - Tested for extreme temperature operation up to 55°C.
- **Plenty of AC Generator Power**
  - 19 kW peak (17 kW continuous) 3-phase 380V AC generator power. Will power industrial equipment such as a plasma cutter, pump or inverter welder for a second arc.
  - Operate common construction tools with two 3.6 kW 220V 1-Phase power (European receptacles).
  - Lighted engine dashboard gauge is readable from a distance and at night.
  - Polarity switch to run DC- for root pass and DC+ for fill and cap passes. (Not included on the K3385-2)

ADDITIONAL FEATURES (K3385-2)

- **Exhaust Spark Arrestor included**
- **Lower sound than previous Vantage 500-I model**
- **Residual Current Device (RCD) included**

EXPORT ONLY – NOT FOR SALE IN THE U.S.A. AND CANADA

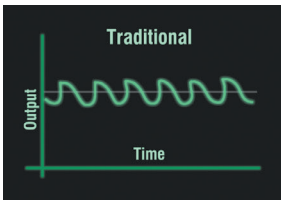
Arc Performance

- Multi-process welding - Select one of five process modes, including CC-stick (up to 6.3 mm), downhill pipe (for stick), DC Touch-Start TIG®, CV-wire (up to 2.4 mm, with 2.4 mm E70T-6 up to 6.6 m/minute, 27V) or arc gouging mode which maximizes output with up to 8.0 mm carbon rods.
- Lincoln Electric CT Chopper Technology® for superior arc performance.
- CC-stick mode is optimized for general purpose stick using E7018 low hydrogen electrode.
- Built-in "hot" start for easier starts and restrikes minimizing the electrode "sticking" to the work.
- Downhill pipe mode with active arc force control - enhanced downhill pipe welding mode. Excellent for cellulosic electrodes. Fast travel speeds, especially on fill passes. Arc control adjustment for a soft, buttery arc or a more forceful digging arc.
- Standard DC Touch-Start 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 (CO_2 and mixed gas).

Generator Performance

- 3-phase 380V AC generator power rated at 19 kW peak (17 kW continuous) output to power industrial equipment such as a plasma cutter, pump or inverter welder such as a Lincoln Electric Invertec® V275-S for a second arc. Simultaneously weld and use 3-phase AC power—for example, up to 9,400 watts can be delivered while welding at 300 amps. Compare to competitive product which has 3-phase power available as an extra-cost factory-only option.
- Run 200 amps from the Invertec® V275-S and 200 amps from the Vantage® 500-I at the same time, for two arcs.
- 3-phase 380V NEMA receptacle on control panel eliminates the need to hard-wire the connections. Matching plug available.
- The Vantage® 500-I provides added value at the job site by delivering up to 3,300 watts of 1-phase AC auxiliary power for equipment such as lights, grinders and other common construction tools. You can simultaneously weld and have access to AC power—3,300 watts can be delivered while welding at 300 amps.
- AC generator voltage is constant at 220V at any weld dial setting.
- All receptacles are circuit breaker protected. Each single-phase receptacle has a spring-loaded weather protective cover which keeps each receptacle protected from the environment when not in use.
- 220V AC European style receptacles with RCD (Residual Current Device) installed on the K3385-2 and RCD ready port for conveniently adding a customer supplied RCD on the K3385-1.

WHAT IS CHOPPER TECHNOLOGY®?



Traditional weld control is more variable around the desired output.

Chopper Technology® delivers extremely fast response for tighter output control.

Patented and award-winning Lincoln Electric 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
- Low spatter levels
- Smooth arc action
- Excellent bead appearance

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 Electric'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.

SIMULTANEOUS WELDING AND AC GENERATOR POWER

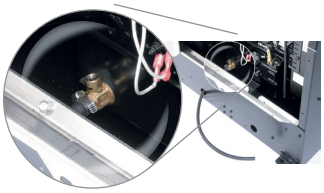
Weld Amps		1-Phase (220V) Watts	1-Phase (220V) Amps		3-Phase Watts	3-Phase Amps		Both 1- and 3-Phase Watts	Both 1- and 3-Phase Amps
0	PLUS	3,300	15	OR	16,450	25	OR	-	50
100		3,300	15		14,100	21		-	50
200		3,300	15		10,900	16		-	50
300		3,300	15		6,900	10		4,700	-
400		1,700	7		2,200	3		1,700	-
500		0	0		0	0		0	-

FEATURES

Single-side engine access with lockable sliding door.

Convenient slide-out battery drawer below control panel.

Combined display for Oil Pressure, Temperature, Hours, Fuel and Battery Voltage



Handy oil drain valve and tube makes oil changes easy.

Output automatically switches to remote mode when remote device is connected. For the CC-stick, downhill pipe and Touch Start TIG® modes, the machine output dial becomes a maximum current limit for more fine tuning with the remote control dial or Amptrol™.

- Simple controls – Keeps training time to a minimum. The flip-down control panel door keeps less frequently used dials out of the way. Scratch-resistant Lexan® nameplate.
- Digital weld meters for amps and volts output make it easy to precisely set procedures.
- Large 76 liter (20 gallon) fuel tank provides run time for an extended day – over 16 hours of welding at 400A/36V/100% duty cycle output, or 36 hours at high idle.
- Great engine choice – 32.7 horsepower water-cooled 4 cylinder Perkins® 404D-22 diesel engine. Engine has an automatic idler for greater fuel economy and reduced noise, and a glow plug button for cold weather starting.
- Engine hour meter for scheduled maintenance.
- LN-25 Ironworker™ across-the-arc wire feeder is a recommended option.
- Two Vantage® 500-I units can be paralleled in the CC-stick mode to increase output.
- Kilowatts available for Multi-Weld® 350 use: 6 kW @ 60 VDC, 8.7 kW @ 58 VDC.

NOTE: Control panel door not shown.

K3385-1

1. Output Control
2. Digital Output Meters
3. Arc Control
4. Weld Mode Selector Switch
5. Glow Plug Push Button
6. Run/Stop Switch
7. Circuit Breaker
8. Engine Stop Switch
9. Dashboard Gauge
10. Weld Output Terminals With Flange Nut
11. Vrd (Voltage Reduction Device) Indicator Lights
12. Weld Terminals Control Switch
13. Start Push Button
14. Idler Switch
15. 6-Pin Connector
16. Ground Stud

K3385-2

1. Output Control
2. Digital Output Meters
3. Arc Control
4. Weld Mode Selector Switch
5. Glow Plug Push Button
6. Run/Stop Switch
7. Circuit Breaker
8. Engine Stop Switch
9. Dashboard Gauge
10. Weld Output Terminals With Flange Nut
11. Vrd (Voltage Reduction Device) Indicator Lights
12. Weld Terminals Control Switch
13. Start Push Button
14. Idler Switch
15. 6-Pin Connector
16. Ground Stud

QUALITY AND RELIABILITY

- 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 or high engine temperature.
- 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. (Indicator lights located on new Dashboard Gauge)
- Circuit breaker protection on the battery ignition system provides added component protection.
- Environmental friendly engine! Engine has a 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.
- Perkins® engine camshaft is gear-driven. No timing belt maintenance.
- Printed circuit boards are environmentally-shielded using potting compound and protective frame trays.

- Dependability and long life aided by all-copper windings in rotor and stator with high quality insulation.
- Standard stainless steel roof, side panels and engine-access door deliver added protection, durability and corrosion-resistance. Eliminates the need to paint or replace rusting panels.
- Manufactured under a quality system certified to ISO 9001 requirements and ISO 14001 environmental standards.
- Three-Year Lincoln Electric warranty on welder (engine is warranted separately by the manufacturer).

MACHINE SPECIFICATIONS

Product Name	Ordering Information	Description	CC/Pipe-Rated DC Output[1] Current/Voltage/Duty Cycle	CV Rated Output[1] Current/Voltage/Duty Cycle	AC Power[3][4]	Dimensions H x W x L inches (mm)	Weight lbs.(kg)
Vantage 500-I (Polarity Switch)	K3385-1	500 Amp DC Welder with Engine Gauges 19,000 Watts Peak 16,400 Watts Continuous AC Power 3-Phase 6,600 Watts Continuous AC Power 1-Phase	DC Constant Current At 40º C 500A/30V/40% 450A/34V/60% 400A/36V/100% 30-500A DC Pipe Current 300A/32V/100% 40-300A Touch-Start TIG® Range 250A/30V/100% 20-250A Arc Gouge 400/36V/100% 90-450A Single Dial Continuous Control 60V DC Max OCV @1880 RPM	DC Constant Voltage[2] At 40º C 500A/30V/40% 450A/34V/60% 400A/36V/100% 14-36V Single Dial Continuous Control	19,000 Peak Watts, 60 Hz (2) 240V 1-Phase European Receptacle 15A each 380V 3-Phase Full KVA Receptacle 41A	35.9 x 25.3 x 60.0 (913 x 642 x 1524) To top of exhaust tube: 46.2 (1174)	1230 (559)
Vantage 500-I (RCD Ready)	K3385-2						

[1] High Altitude: For maximum rating, derate the output 2.5% to 3.5% for every 1,000 ft. (300 m).
[2] DC Constant Voltage capability provides convenience and added safety when welding in electrically hazardous conditions.
[3] When welding, available auxiliary power will be reduced. Output voltage is within +/- 10% at all loads up to rated capacity.
[4] 120V will operate either 60 Hz or 50/60 Hz power tools, lights, etc.

ENGINE SPECIFICATIONS

Engine Model	Description	Horsepower & Displacement	Dry Capacities	Operating Speeds	Fuel Consumption
Perkins® 404D-22 EPA Tier 4i[6]	4 Cylinder, 4 Cycle Water-Cooled Diesel Engine, 12V Electric Start, Dry Type Air Cleaner, Fuel Filter with Water Separator, Mechanical Governor	32.7 HP @ 1800 RPM 136 cu. in. (2.2 liters)	FUEL: 20 Gals (76 liters) OIL: 11.2 Qts (10.6 liters) RADIATOR COOLANT: 8.0 Qts (7.6 liters)	400A Load 1800 RPM	1.2 Gals/Hr 4.5 liters/Hr
				High Idle 1880 RPM	0.4 Gals/Hr 1.6 liters/Hr
				Low Idle 1400 RPM	0.3 Gals/Hr 1.0 liters/Hr

[6] Perkins® warranty is 2 years/2,000 hours for all components, 3 years major non-electric components. See warranty for details.

RECOMMENDED ACCESSORIES

GENERAL OPTIONS

Shown with optional K2639-1 Fender & Light Kit

Medium Welder Trailer
For heavy-duty road, off-road, plant and yard use. Includes pivoting jack stand, safety chains, and 13 in. (330 mm) wheels. Stiff .120 in. (3.0 mm) welded rectangular steel tube frame construction is phosphate etched and powder coat painted for superior rust and corrosion resistance. Low sway suspension gives outstanding stability with manageable tongue weight. Wheel bearings are packed with high viscosity, high pressure, low washout Lubriplate® grease. Includes a Duo-Hitch® – a 2 in. (51 mm) Ball/Lunette Eye combination hitch. Overall width 60 in. (1524 mm). Overall length 124 in. (3150 mm).
Order:
K2636-1 Trailer
K2639-1 Fender & Light Kit
K2640-1 Cable Rack

Four-Wheeled Steerable Yard Trailer
For off-road, plant and yard use. Includes an automatically engaging drawbar lock when the drawbar is raised to the verticle position. 13 in. (330 mm) wheels. Wheel bearings are packed with high viscosity, high pressure, low washout Lubriplate® grease. Stiff 3/16 in. (4.8 mm) welded rectangular steel frame construction is phosphate etched and powder-coat painted for superior rust and corrosion resistance. Also includes a Duo-Hitch® – a 2 in. (51 mm) Ball/Lunette Eye combination hitch. Overall width 55 in. (1397 mm). Overall length 124 in. (3150 mm).
Order K2641-2

Polarity/Multi-Process Switch
For easy polarity switching. Example: DC-stick root pass on pipe and DC+ stick for hot, fill and cap passes. Also for an easy process change. Example: DC+ stick root pass on pipe and DC- Innershield® self-shielded flux-cored wire for hot, fill and cap passes. 6-pin and 14-pin remote connections can be made to this unit. For all Lincoln Electric Chopper Technology® engine-driven welders. Mounts on roof with K2663-1 Docking Kit.
Order K2642-1

Docking Kit
Secures the K2642-1 Polarity/ Multi-Process Switch to the engine-driven welder roof. Release latch permits removal of K2642-1 Polarity/Multi-Process Switch. Made from stainless steel for rust-free operation. For all Lincoln Electric Chopper Technology® engine-driven welders.
Order K2663-1

STICK OPTIONS

Remote Output Control
Consists of a control box with choice of two cable lengths. Permits remote adjustment of output.
Order K857 for 25 ft. (7.6 m)
K857-1 for 100 ft. (30.5 m)

SECOND ARC MULTI-PROCESS EQUIPMENT

Flextec 350X
Available in a Construction or Standard version with enhanced connectivity, the Flextec 350X models can be used in standalone or multi-operator rack configurations. Equipped with CrossLinc®, Flextec 350X models enable remote current control for stick or voltage control for wire welding.
Order
K4272-1

LN-25X
Includes CrossLinc communication technology. Also functions as an across-the-arc feeder. See Publication E8.101
Order
K4267-1

CrossLinc Remote
Use with any CrossLinc-equipped Flextec welder to adjust welding setting remotely at the arc, including current for stick or TIG welding. Also compatible with some across-the-arc wire feeders such as (Activ8, LN-25, LN-25 Pro without digital meters) See Publication MC16-137
Order
K4345-1

TIG OPTIONS

Pro-Torch™ PTA-26V TIG Torch
Air-cooled 200 amp torch (2 piece) equipped with valve for gas flow control. 25 ft. (7.6 m) length.
Order K1783-9

Foot Amptrol™
Provides 25 ft. (7.6 m) of remote output control for TIG welding. (6 pin plug connection).
Order K870

Hand Amptrol™
Provides 25 ft. (7.6 m) of remote current control for TIG welding. (6 pin plug connection). Velcro straps secure torch.
Order K963-3 (one size fits all Pro-Torch™ TIG Torches)

WIRE FEEDER OPTIONS

LN-25 Ironworker™ Wire Feeder
Portable CV unit for flux-cored and MIG welding with MAXTRAC® wire drive system. Includes digital meters for wire feed speed/ amperage and voltage, gas solenoid, internal contactor and 5/64 in. (2.0 mm) drive roll kit for cored wire. Has 83% reduced wire feed speed capability for 6 o'clock pipe welding with Innershield® wire.
Order K2614-9

K126™ PRO Innershield® Gun
For self-shielded wire with 15 ft. (4.5 m) cable. For .062-5/64 in. (1.6-2.0 mm) wire. Includes K466-10 Connector Kit.
Order K126-12

Magnum® PRO 350 Ready-Pak® 15 ft., .035-5/64 in.
Magnum® PRO MIG/flux-cored welding guns are rated 100% duty cycle. The guns are designed for high amperage, high duty cycle applications in extreme environments where heat-resistance and fast serviceability are key.
Order K2652-2-10-45

PRODUCT SPECIFICATIONS

Product Name	Product Number	Rated Output Current/Voltage/ Duty Cycle	Output Range	Engine	Number of Cylinders	HP@ Speed (rpm)	H x W x D inches (mm)	Net Weight lbs. (kg)
Vantage 500-I (Polarity Switch)	K3385-1	At 40º C 500A/30V/40% 450A/34V/60% 400A/36V/100%	30-500A DC 40-300A Pipe 20-250A DC TIG 14-36V CV 90-450A Gouge 3-Phase AC Power: 19 kW Peak, 16.4 kW Continuous 1-Phase AC Power: 6.6 kW 220V	Perkins® 404D-22 Diesel EPA Tier 4i	4	32.7 @ 1800	35.9 x 25.3 x 60.0 (913 x 642 x 1524) To top of exhaust tube: 46.2 (1174)	1230 (559)
Vantage 500-I (RCD Ready)	K3385-2							

For best welding results with Lincoln Electric equipment, always use Lincoln Electric consumables. Visit www.lincolnelectric.com for more details.

Manufactured at a facility with certified ISO Quality and Environmental Management Systems.

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 information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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