VANTAGE® 400
Compact, Multi-Process, Excellent Value

The quiet, compact Vantage® 400 is an ideal choice for construction teams, pipe rig owners and rental fleet managers.

- Stainless steel panels offer added durability
- Select one of five welding process modes
- Plenty of AC Generator power
- Tier 4i Perkins® diesel engine

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

Applications
Construction
Pipe
Maintenance & Repair

Output »

Input »

Product Number »
Perkins® K2410-5

Two Year Extended Warranty Available in the U.S.A. and Canada.
FEATURES

» Compact Case with Stainless Steel Enclosure
  - One of the most compact 400 amp machines available. Suitable for many pickup and service trucks.
  - 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 (up to 1/4 in.), Downhill Pipe (for stick), DC Touch Start TIG®, CV-Wire (up to 3/32 in.) or Arc Gouging mode which maximizes output with up to 5/16 in. carbon rods.

» Plenty of AC Generator Power
  - 19 kW peak (17 kW continuous)
  - 3-Phase 240V AC generator power. Will power industrial equipment such as a plasma cutter, pump or inverter welder.
  - 12 kW peak (11 kW continuous)
  - 1-phase AC generator power for common construction tools.

» Reliable Engines
  - 20 gallon fuel tank for long run time.

» Innovative Service Access
  - Lockable, removable sliding engine access door provides ample space for engine and oil filter work without requiring a large clearance space on your truck.
  - Battery drawer on front of machine and top-mounted radiator cover provide convenient access to these systems.
  - Patented tilt down control panel for easy servicing of internal components.
  - Patented radiator cap cover is latched for easy access and lockable.

» Low Noise
  - 99.1 dBA Lwa sound power (74.8 dB at 23 ft./7 m) — one of the quietest 400 amp engine-driven welders available.

- Single-side engine access with lockable sliding door.
- Fuel, oil pressure and engine temperature gauges help you monitor performance.
- 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™.
- Convenient slide-out battery drawer below control panel.
- Latched and lockable radiator cap cover.
- Handy oil drain valve and tube makes oil changes easy.
- 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 your procedures.
- Large 20 gallon (76 liter) 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 — 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. Other across-the-arc choices are the LN-25 PRO and Active8™.
- 14-pin connector for Lincoln Electric wire feeders with control cables — LF-72, LF-74, LN-8, LN-25 PRO Dual Power and LN-742. Also compatible with Magnum® SG Spool Gun System.
- Two Vantage® 400 units can be paralleled in the CC-stick mode to increase output.
- Kilowatts available for Multi-Weld® use: 6 kW @ 60 VDC, 8.7 KW @ 58 VDC.
Arc Performance

- 400 amps @100% duty cycle with output range up to 500 amps using Chopper Technology®. All ratings are at temperatures of 104°F/40°C.

- VRD™ (Voltage Reduction Device™) reduced OCV (open circuit voltage) in CC-stick welding mode for added safety.

- 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.

Generator Performance

- 3-phase 240V 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. 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.
- 3-phase 240V receptacle on control panel eliminates the need to hard-wire the connections.
- The Vantage* 400 provides added value at the job site by delivering up to 12 kW peak (11 kW continuous) watts of 1-Phase AC auxiliary power for equipment such as a Lincoln Electric plasma cutter. Also use for lights, grinders and other common construction tools. And, you can simultaneously weld and have access to AC power – 4,700 watts can be delivered while welding at 300 amps.
- AC generator voltage is constant at 120V or 240V at any weld dial setting.
- All receptacles are circuit breaker protected. Each receptacle has a spring-loaded weather protective cover which keeps each receptacle protected from the environment when not in use.
### SIMULTANEOUS WELDING AND AC GENERATOR POWER

<table>
<thead>
<tr>
<th>Weld Amps</th>
<th>Watts</th>
<th>Amps</th>
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<td>11,000</td>
<td>46</td>
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<tr>
<td>200</td>
<td>8,000</td>
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### 1 Phase

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<th>Watts</th>
<th>Amps</th>
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<tr>
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<td>4,700</td>
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### 3 Phase

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<td>15,400</td>
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<td>13,000</td>
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<td>9,400</td>
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<td>3,400</td>
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### Simultaneous 1 and 3 Phase

<table>
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<tr>
<th>Watts</th>
<th>Amps</th>
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<tbody>
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<td>11,000</td>
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<td>4,700</td>
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<td>1,700</td>
<td>-</td>
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<tr>
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</table>

### KEY CONTROLS

1. Glow Plug Button
2. Weld Mode Selector Switch
3. Run/Stop Switch
4. Hour Meter
5. Start Pushbutton
6. Engine Idler Switch
7. Fuel Level, Engine Temperature and Oil Pressure Gauges
8. Engine Protection Light
9. Engine Battery Charging Light
10. 120 VAC Circuit Breakers
11. 120 VAC Receptacles
12. Covered Weld Output Terminals + and -
13. Sealed GFCI Modules
14. Ground Stud
15. 120/240 VAC Full-KVA 1-Phase Receptacle
16. 240 VAC Full-KVA 3-Phase Receptacle
17. Full-KVA 1- and 3-Phase Circuit Breaker
18. 14-Pin Wire Feeder Connector
19. 6-Pin Remote Control Connector
20. Arc Force and Inductance/Pinch Control Dial
21. Welding Terminals Control Switch
22. Wire Feeder Voltmeter Polarity Switch
23. Digital Amperes and Volts Output Meters
24. VRD Indicator Lights
25. Output Control Dial

Note: Control panel door not shown.
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.
- 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 camshafts are gear-driven. No timing belt maintenance.
- Printed circuit boards are environmentally-shielded using Lincoln Electric’s engineered 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.
- CSA (Canadian Standards Association) Certified.
- Three-year Lincoln Electric warranty on welder (engine is warranted separately by the manufacturer - see Engine Specifications, footnote 6).

MACHINE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Ordering Information</th>
<th>Description</th>
<th>CC/Pipe-Rated DC Output Current/Voltage/Duty Cycle</th>
<th>CV Rated Output Current/Voltage/Duty Cycle</th>
<th>AC Power</th>
<th>Dimensions H x W x L inches (mm)</th>
<th>Weight lbs. (kg)</th>
</tr>
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<tbody>
<tr>
<td>Vantage® 400 (Perkins®)</td>
<td>K2490-5</td>
<td>400 Amp DC Welder with Engine Gauges 19,000 Watts Peak 17,000 Watts Continuous AC Power 3-Phase 12,000 Watts Peak 11,000 Watts Continuous AC Power 1-Phase</td>
<td>DC Constant Current 400A/36V/100% 450A/32V/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</td>
<td>DC Constant Voltage 400A/36V/100% 450A/32V/100% 14-30V Single Dial Control Wire Feeder Power 120V/60Hz 42V/60Hz</td>
<td>19,000 Peak Watts, 60 Hz Two 120V Duplex Receptacles w/ Sealed GFCI Modules 20A Per Duplex 40A Total</td>
<td>35.9 x 25.3 x 60.0 (913 x 642 x 1524) To top of exhaust tube: 46.6 (1184)</td>
<td>1230 (559)</td>
</tr>
</tbody>
</table>

ENGINE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Description</th>
<th>Horsepower &amp; Displacement</th>
<th>Dry Capacities</th>
<th>Operating Speeds</th>
<th>Fuel Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perkins® 404D-22 EPA Tier 4i</td>
<td>4 Cylinder, 4 Cycle Water-Cooled Diesel Engine, 12V Electric Start, Dry Type Air Cleaner, Fuel Filter with Water Separator, Mechanical Governor</td>
<td>32.7 HP @ 1800 RPM 136 cu. in. (2.2 liters)</td>
<td>FUEL: 20 gals (76 liters) OIL: 11.2 qts (10.6 liters) RADIATOR COOLANT: 8.0 qts (7.6 liters)</td>
<td>400A Load 1800 RPM 12 Gals/Hr 4.4 Gals/Liter High Idle 1800 RPM 0.4 Gals/Liter 15 Gals/Hr Low Idle 1400 RPM 0.3 Gals/Liter 11 Gals/Hr</td>
<td></td>
</tr>
</tbody>
</table>
**GENERAL OPTIONS**

**Power Plug Kit** (20A)
Provides four 120V plugs rated at 20 amps each, and one dual voltage, full KVA 1-phase plug rated at 120/240V, 50 amps. 120V plug may not be compatible with common household receptacles.
Order K9037-1

**Full-KVA Power Plug** (1-Phase)
One dual voltage plug rated at 120/240V, 50 amps. NEMA 14-50P.
Order T1266-9

**Full-KVA Power Plug** (3-Phase)
One plug rated at 120/240V, 50 amps. NEMA 15-50P.
Order T1266-10

**Full-KVA Adapter Kit** (1-Phase)
Provides convenient connection of Lincoln Electric equipment having a 240V AC 1-phase plug (NEMA 6-50P) to the full-KVA receptacle on Lincoln engine-driven welders.
Order K1842-1

**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 12 in. (300 mm) welded rectangular steel 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 84 in. (2133 mm).
Order: K2640-1

**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 vertical position. 13 in. (330 mm) wheels. Wheel bearings are packed with high viscosity, high pressure, low washout Lubriplate® grease. Stiff 3/4 in. (19 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 56 in. (1422 mm). Overall length 84 in. (2133 mm).
Order K2642-1

**Spark Arrestor Kit**
Mounts to muffler exhaust tube. Virtually eliminates spark emissions.
Order K9037-1

**Cold Weather Kit**
For engine starting and operation in extreme cold weather conditions down to -40°F (-40°C) (with the use of 0W40 synthetic oil and arctic diesel fuel). Includes 120V AC oil pan heater, 120V AC engine block heater, and radiator grill tarp.
Order K2679-1

**K2642-1 Docking Kit**
Includes a 25 ft. (7.6 m) 2/0 work cable with lug, 30 ft. (9.1 m) 2/0 electrode cable with lug, 13 in. (330 mm) wheels. Wheel bearings are packed with high viscosity, high pressure, low washout Lubriplate® grease.
Order TK759-1 for Kubota®

**Polarity/Multi-Process Switch**
For easy polarity switching. Example: DC+ stick root pass on pipe & DC- stick for hot, fill and cap passes. Also for an easy process change. Example: DC- stick root pass on pipe & DC- Innershield® self-shielded flux-cored wire for hot, fill and cap passes. 6 & 14-pin remote connections can be made to this unit. For all Lincoln Electric Chopper Technology® engine-driven welders. Mounts on roof with K2643-1 Docking Kit.
Order K2642-1

**Docking Kit**
Order K2643-1

**Stick Options**

- **Accessory Kit**
Includes 35 ft. (10.7 m) 20 electrode cable with lug, 30 ft. (9.1 m) 20 work cable with lugs, headshield, filter plate, cover plate, work clamp and electrode holder. 400 amp capacity.
Order K702-1

- **Remote Output Control**
Consists of a control box with choice of two cable lengths. Permits remote adjustment of output.
Order K8079 for 25 ft. (7.6 m)
Order K9035 for 100 ft. (30.5 m)

**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 K7179-9

- **Magnum® Parts Kit for PTA-26V TIG Torch**
Magnum® Parts Kit provides all the torch accessories you need to start welding. Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungsten in a variety of sizes, all packaged in an easy to carry reusable case.
Order K9051

- **Foot Amptrat™**
Provides 25 ft. (7.6 m) of remote output control for TIG welding (6-pin plug connection).
Order K1787

- **Hand Amptrat™**
Provides 25 ft. (7.6 m) of remote control for TIG welding (6-pin plug connection). Veltro straps secure torch.
Order K693-3

- **Square Wave TIG 200**
This 46 lb (21 kg) TIG and stick welder includes adjustable AC. Frequency Control and AC Balance for great results on aluminum, pulse mode and 120V or 230V input power capability.
Order K1526-1

**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 mm) drive roll kit for cored wire. Has 86% reduced wire feed speed capability for 6 o'clock pipe welding with Innershield® wire.
Order K2614-9

- **K2617 PRO LN-25 Wire Feeder Gun**
For self-shielded wire with 15 ft. (4.5 m) cable. For .062-.187 in. (1.6-4.8 mm) wire. Includes K641-10 Connector Kit.
Order K2617-12

- **Drive Roll and Guide Tube Kit**
For .062-.072 in. (1.6-1.8 mm) cored or solid steel wire.
Order K9667-068

- **K126 PRO LN-25 Ironworker™ Gun**
For .062-.072 in. (1.6-1.8 mm) cored or solid steel wire.
Order K9667-068

- **Magnum® PRO 360 Ready-Pak™**
15 ft., .093-5/64 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 K2662-2-10-45

**Recommended Accessories**

- **Shown with optional K2639-1 Fender & Light Kit**

**Recommended Accessories**

- **Shown with optional K2639-1 Fender & Light Kit**
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.

Lincoln Electric is a responsive 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.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.


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

PRODUCT SPECIFICATIONS

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<thead>
<tr>
<th>Product Name</th>
<th>Product Number</th>
<th>Rated Output</th>
<th>Output Range</th>
<th>Engine</th>
<th>Number of Cylinders</th>
<th>HP &amp; Speed (RPM)</th>
<th>H x W x D inches (mm)</th>
<th>Net Weight lbs. (kg)</th>
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<tbody>
<tr>
<td>Vantage® 400</td>
<td>K4410-5</td>
<td>400A/36V/100%</td>
<td>30-500A DC</td>
<td>Perkins® 404D-22</td>
<td>4</td>
<td>32.7 @ 1800</td>
<td>35.9 x 25.3 x 60 (913 x 642 x 1524)</td>
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<td>19 kW Peak, 17 kW Continuous</td>
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PLASMA CUTTING

Tomahawk® 1000
Cuts metal using the AC generator power from the engine-driven welder. Requires the T12153-9 Full KVA Power Plug (3-Phase).
Order K2081-1

RECOMMENDED ACCESSORIES

Drive Roll and Guide Tube Kit
For .035 in. and .045 in. (0.9-1.1 mm) solid steel wire.
Order KP696-1

Magnum® SG Spool Gun
Hand held semiautomatic wire feeder. Requires SG Control Module and Input Cable.
Order K487-25

5G Control Module
The interface between the power source and the spool gun. Provides control of the wire speed and gas flow. For use with a spool gun.
Order K488

Input Cable
(For SG Control Module)
For Lincoln engine power sources with 14-pin MS-type connection, separate 115V NEMA receptacles and output stud connections.
Order K691-10

For any updated information, please visit www.lincolnelectric.com.