

FLEXTEC® 650X

Multi-process power for heavy duty applications.



Simple. Reliable. Flexible.

This multi-process welder delivers up to 815 amps of welding power for a variety of applications, including construction, shipbuilding and heavy fabrication.

Embedded CrossLinc® Technology drives welding control at the arc without an added cable to save costs, increase quality and enhance productivity and safety on the job site.

The world-ready Flextec 650X will run on a wide range of available voltage input power and is IP23 rated for outdoor operation and storage. Broad wire feeder compatibility is not an issue – The Flextec 650X will operate with almost any Lincoln Electric® wire feeder or welding process.

Simple. Reliable. Flexible. Specify the Flextec 650X for your heavy duty applications.

Processes

Stick, TIG, MIG, Flux-cored, Submerged Arc, Gouging

Applications

Fabrication, Shipbuilding, Construction

Input



Output



Product Number

K3533-1 CE Model

WELDING TECHNOLOGY
SUPPLIERS OF WELDING AND ENGINEERING EQUIPMENT



Key Features

Simple

- Easy one-knob weld process selection
- Fast inverter arc response means smooth arc action and consistent bead appearance
- User weld schedule memory storage allows easy recall of your critical or often repeated weld procedures with applicable feeders(1)
- Synergic single knob control over wire feed speed and voltage with applicable feeders(2)

Reliable

- Components designed to run cool for long life in high temperature environments
- Engineered for outdoor use and harsh environments (IP23 rated)
- Desert Duty® Rated for extreme temperatures up to 55°C

Flexible

- Ideal for large diameter wire or stick welding on thick materials
- Compatible with most Lincoln Electric feeders, including including older and new common bench and boom models, portable across-the-arc models and CrossLinc Technology or ArcLink®-equipped models
- ArcLink digital communication compatibility ensures the Flextec 650X remains 'future-proof' as new wire feeders are introduced
- Premium arc characteristics on all DC wire, stick and TIG processes
- Large output range: 10-815A allows you to weld 20 ga stainless all the way through gouging with 1/2 in. carbons.
- 115VAC duplex receptacle to power tools, lights, and accessories.

CrossLinc Technology Compatibility

- When this machine is paired with a CrossLinc technology enabled accessory, many benefits are unlocked.
- Full functionality without control cables
- Enables remote procedure setting at the feeder to improve weld quality
- Increases arc time with fewer trips to the power source to adjust settings
- Improves safety by reducing jobsite clutter

(1) User weld schedule memory settings available only with Power Feed® and Flex Feed® 84 wire feeders. (2) Synergic control available only with Power Feed wire feeders

FLEXIBILITY

Use the Flextec 650X with nearly any Lincoln Electric wire feeder or welding process.



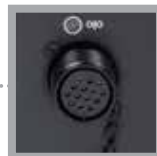
CrossLinc® (Lincoln Electric LN-25X model)

CrossLinc Technology communicates through a standard weld cable to enable voltage or current control at the arc without a control cable.



5-pin (Lincoln Electric Power Feed models)

5-pin high-speed ArcLink® digital communication enables advanced wire feeder compatibility and additional operator controls. Allows compatibility with future wire feeder models.



14-pin (Lincoln Electric LF, LN and Flex Feed models)

14-pin analog communication allows compatibility with most existing Lincoln Electric wire feeders.



Across-the-arc (Lincoln Electric LN-25 PRO / Activ8® models)

Across-the-arc feeders connect to the power source using the weld cables. This basic configuration does not use a control cable or CrossLinc Technology, so voltage control is only accessed at the welding power source.

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CROSSLINC TECHNOLOGY



CrossLinc w/True Voltage Technology (TVT) – Improve all aspects of your operation with CrossLinc Technology and TVT.

Safety

- Reduce jobsite clutter by removing cumbersome control cables.
- Eliminate unnecessary movement of personnel across the jobsite.
- No need to drag heavy control cables around the site.

Quality

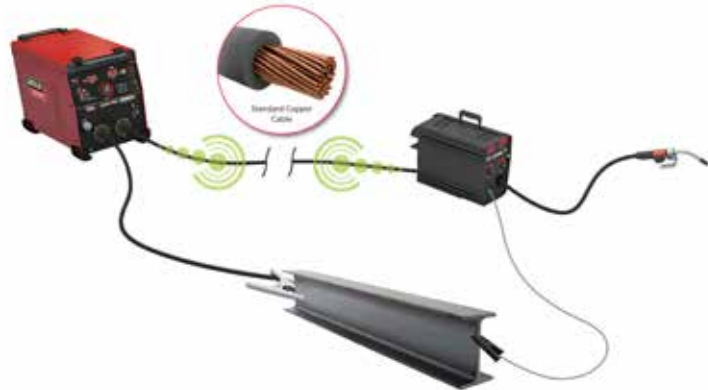
- Full output control at the arc results in the correct settings for every weld.
- True Voltage Technology (TVT) accurately compensates for voltage drop across long cable runs.
- Eliminate unintentional machine adjustments by helpers or other operators.

Productivity

- Setup faster with fewer cable connections.
- Eliminate trips to the power source to make procedure adjustments.
- Minimize rework with easy settings adjustments.

Crosslinc Technology Communicates Settings Directly Over The Weld Cables.

- No additional control cable is needed.
- Pre-set the desired voltage on the feeder.
- The feeder sends the signal to the CrossLinc enabled power source.
- The CrossLinc compatible power source puts out the desired voltage.
- The Activ8X receives the voltage and lets you know the actual voltage at the arc.

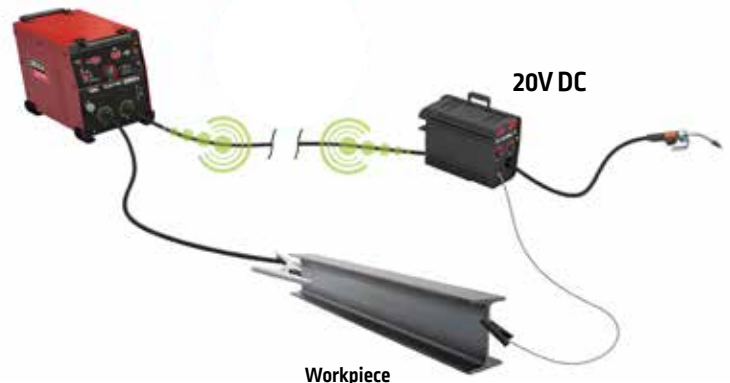


TRUE VOLTAGE TECHNOLOGY (TVT)



As is common in many outdoor welding applications: (Structural steel, Shipbuilding, Offshore, etc.) the operator can be located hundreds of feet away from the power source. Long cables and multiple connections can create a difference in voltage (voltage drop) between the power source and the weld. In the example to the right, 24volts is set on the welding power source. Due to electrical resistance through long cables, only 20volts are actually available at the arc. This may result in a cold weld.

24V DC



Workpiece

True Voltage Technology (TVT) sees this drop and gives you the true voltage you set by adjusting the power source to compensate for the voltage drop. In the example below, 24v is preset at the Activ8X wire feeder. TVT senses there is a 4 volt drop due to long weld cables and compensates by increasing the welder output to 28V. The result is the desired 24v available at the welding arc.

28V DC



Workpiece

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FLEXTEC 650X Controls

1. Amperage Display Meter
2. Thermal LED
3. Output Control Dial
4. Hot Start Control Dial
5. Weld Process Selector Switch
6. Positive and Negative Welding Output Studs
7. VRD (Voltage Reduction Device) Indicator Light
8. Voltage Display Meter
9. CrossLink Indicator Light
10. Power Switch
11. Arc Force Control Dial
12. Local/Remote Output Selector Switch
13. Weld Terminals On/Remote Selector Switch
14. Wire Feeder Voltmeter Polarity Selection Switch
15. Circuit Breaker Reset Buttons for 42V feeders and ArcLink peripherals
16. 42V or 115V Wire Feeder Selector Switch
17. Remote Output Control 12-pin Universal Connector
18. 14-pin Wire Feeder Connector
19. 5-pin ArcLink Connector
20. Input cord strain relief
21. 115VAC duplex receptacle



WELDING TECHNOLOGY
SUPPLIERS OF WELDING AND ENGINEERING EQUIPMENT





Weld Power Cable
Twist Mate to Twist Mate

- K14166-1 (70MM2-10M)
- K14166-2 (70MM2-15M)
- K14166-3 (70MM2-5M)
- K14166-4 (70MM2-30M)
- K14167-1 (95MM2-30M)
- K14167-2 (95MM2-5M)
- K14167-3 (95MM2-10M)
- K14167-4 (95MM2-15M)



GRD-400A-70-xM*
Ground cable 400A 70 mm²; x=5/10/15 m



E/H-400A-70-xM*
Electrode holder 400A/70mm²; x=5/10m



K2909-1
12-pin to 6-pin Adapter



K857-2
12-pin Remote Output Control



K3059-4
Inverter and Wire Feeder Cart



K4424-1
Flextec 350x Locking Foot Kit



K4068-1
Inverter Cart Mounting Kit
(required to secure Power Feed®
and Flex Feed™ feeders on the cart)



K10095-1-15M
Remote control (6PIN, 15m)



K10398
Extension cable for remote control box K10095-1-15M



K3091-1
Multi-Process Switch
Easily change welding process and polarity without changing
cables at the machine



K10376
Adapter M14/Dinse (F)



SPECIFICATIONS

Product Name	Product Number	Input Power Voltage/Phase/Hertz	Rated Output Current/Voltage/Duty Cycle	Input Current @ Rated Output	Output Range	H x W x L in (mm)	Net Weight lb (kg)
Flextec 650X CE Model	K3533-1	380/460/575/3/50/60	750A/44V/60%	61/50/40	10-815A	21.8 x 16.1 x 29.3 (554 x 410 x 745)	165 (74.8)
			650A/44V/100%	57/47/38			

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

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