

# FLEXTEC® 350X

**SIMPLE. RELIABLE. FLEXIBLE.**



Construction Model

XP Model

PowerConnect® Model

## Whether in a shop or in the field, the Flextec 350X welder is built to perform.

Equipped with CrossLinc® technology, the Flextec 350X family of machines can be controlled from hundreds of feet away without expensive and inconvenient control cables. Desert Duty® and IP23 rated, they can withstand harsh outdoor conditions and outperform other welders in their class.

In the field, the Flextec 350X Construction is a welder's most effective weapon. As a rugged multi-process power source, this model stays reliable and offers much more than other inverter-based welders in its class.

In the shop, the Flextec 350XP model is built to work with all Lincoln 42V feeders for your factory applications. It is also compatible with Arclink® digital feeders to provide synergic modes, memories, and basic pulsed MIG for seamless connectivity and improved weld performance.

The Flextec 350X PowerConnect model adds the ability to weld using any input voltage between 200 and 600 volts.



### Processes »

SMAW, GTAW, GMAW, GMAW-P\*, FCAW, CAC-A (gouging), STT Field\*\*\*

### Applications »

Fabrication, Construction, Shipbuilding, Structural, Pipe

### Output »



### Input »



### Product Number »

- K3441-2 Flextec 350X Construction (Twist Mate)
- K4271-2 Flextec 350X Construction (Tweco®)
- K3442-2 Flextec 350XP (Twist Mate)
- K4272-2 Flextec 350XP (Tweco®)
- K3443-1 Flextec 350X PowerConnect (Twist Mate)
- K4273-1 Flextec 350X PowerConnect (Tweco)
- K5422-1 Flextec 350XP CE (Twist Mate)

\*Pulse requires the use of a compatible Arclink digital wire feeder.

\*\* Single phase input is only available in the PowerConnect model.

\*\*\*STT Field available only on the Flextec 350X PowerConnect and 350XP CE models when paired with the Activ8X Pipe wire feeder.

## FEATURES

### SIMPLE

- Simple interface for ease of use
- CrossLinc technology automatically pairs the accessory with the power source and provides remote output control at the arc without additional remotes or cables<sup>[1]</sup>
- PowerConnect technology automatically adjusts to the input voltage without the need for a manual reconnect<sup>[2]</sup>

### RELIABLE

- Lab tested, field proven ruggedness and durability
- Engineered for outdoor use and harsh environments
- IP23 rated for use in outdoor weather conditions
- Desert Duty rated for operation at temperatures up to 55° C (131° F)
- Trayed and potted PC boards to help withstand welding dust and humidity

### FLEXIBLE

- Multi-process power source for all your welding needs
- Optimized stick welding for both cellulosic and low hydrogen electrodes
- Compatible with CrossLinc, 42V analog, and digital feeders for GMAW and FCAW
- ArcLink enabled to provide synergic pulse modes for reduced spatter, lower heat input, increased productivity, and improved quality<sup>[3]</sup>
- Touch-Start TIG<sup>®</sup> for reducing contamination during starts without high frequency

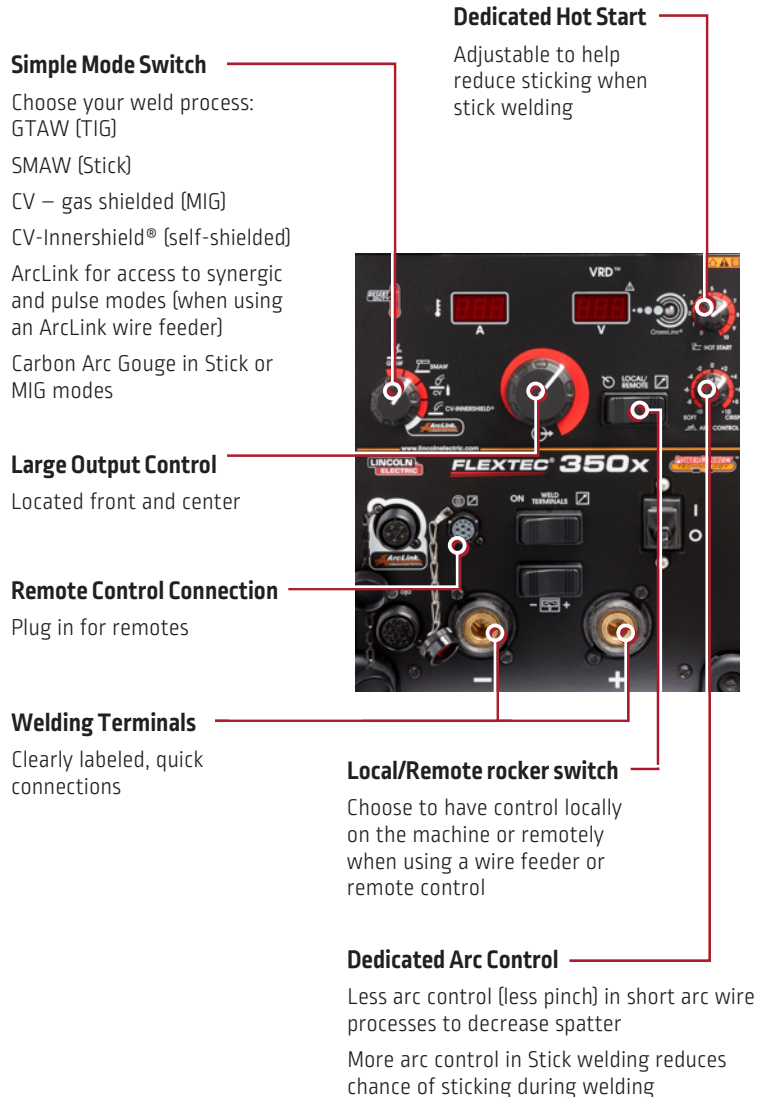
<sup>[1]</sup> When paired with a CrossLinc technology enabled wire feeder or CrossLinc remote.

<sup>[2]</sup> Available in the K4273-1 PowerConnect model.

<sup>[3]</sup> Available on the Flextec 350XP and Flextec 350X PowerConnect model when paired with an ArcLink enabled feeder to access pulse modes.

## SIMPLE

Flextecs are meant to be easy to use in order to increase productivity and decrease downtime. With a user-friendly control setup, settings can be configured with ease.



# RELIABLE

Flexitecs are built to withstand harsh conditions so that they last to help get the job done. Operating in challenging environments, these machines are durable and protected from the elements.

Solid control knobs and rocker switches resistant to damage from spatter and hot welding wires



Automotive grade Molex® connectors, heavy gauge wire, locking tabs for secure connections, rubber boots to help keep contaminants out



Trayed and potted PC boards for physical and environmental protection



- Tough alloy handles for lifting and impact protection
- Lightweight aluminum powder painted case for rust protection
- Shock Absorbing Rubber Feet for impact protection



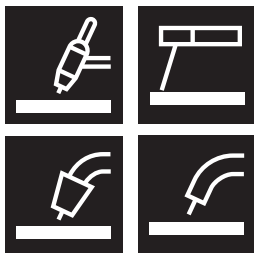
Smart fans run at variable speeds to keep components cool

# FLEXIBLE

Flexitecs are meant to be just that, flexible. With a variety of processes and feeder compatibilities, the Flextec product line is made up of the most versatile welders on the market.

## Any Process

GTAW, SMAW, GMAW, GMAW-P,\*\* FCAW-S, FCAW-G, CAC, STT Field\*



## Any Input Voltage



- 200V
- 208V
- 220V
- 230V
- 380V
- 400V
- 415V
- 440V
- 460V
- 480V
- 575V
- 600V

The Flextec 350X PowerConnect model automatically connects to any input power from **200-600 volts single or three phase**. This allows the machine to be used anywhere in the world and compensates for large fluctuations in incoming voltage.

\*STT Field available on the Flextec 350X PowerConnect and 350XP CE only when paired with the Activ8X Pipe wire feeder.

\*\*Pulse requires the use of a compatible digital ArcLink wire feeder.



**CrossLinc with True Voltage Technology (TVT) – Improve all aspects of your operation with CrossLinc 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 jobsite



**Quality**

- Full output control at the arc allows the welder to input 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

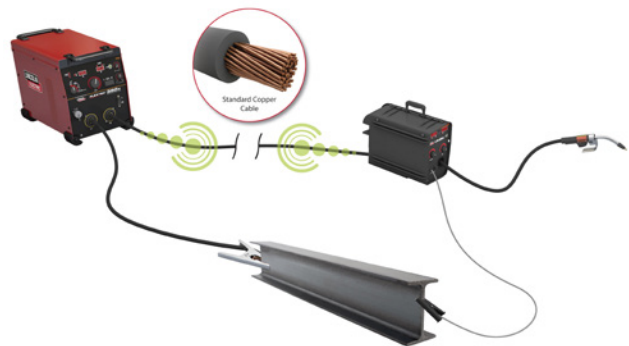


**Productivity**

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

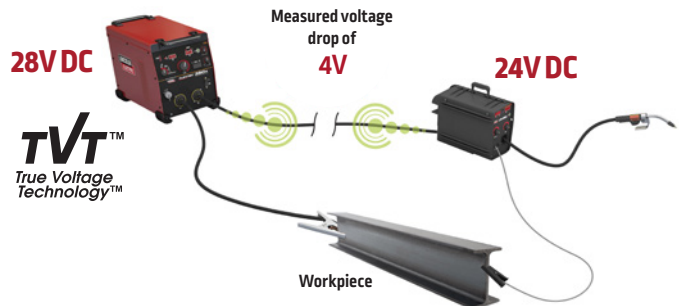
**CrossLinc allows for amperage and voltage control at the welding arc to improve control of your operation.**

- No need for an additional control cable – communication occurs directly over the weld cables:
  1. Set the desired voltage on the CrossLinc wire feeder
  2. The feeder sends a signal to the CrossLinc power source
  3. The power source will change to the desired voltage

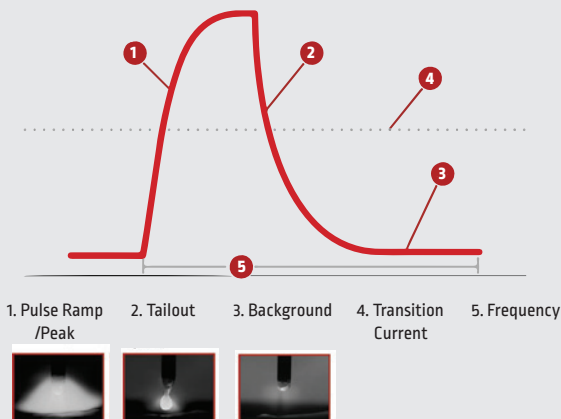


**CrossLinc also features True Voltage Technology to compensate for voltage drop across the welding circuit.**

- TVT will measure the voltage drop and adjust the power source to compensate for the difference between the desired voltage and actual voltage at the weld:
  1. Preset the wire feeder to the desired voltage
  2. Make a test weld
  3. The system will measure voltage drop and automatically adjust the power source to compensate



**PULSE**



Pulsed spray is a non-contact transfer method between the electrode and the weld puddle. This means that at no time does the electrode ever touch the puddle. This is accomplished through high-speed manipulation of the electrical output of the welding machine. It is designed to be a spatterless process that will run at a lower heat input than spray or globular transfer methods.

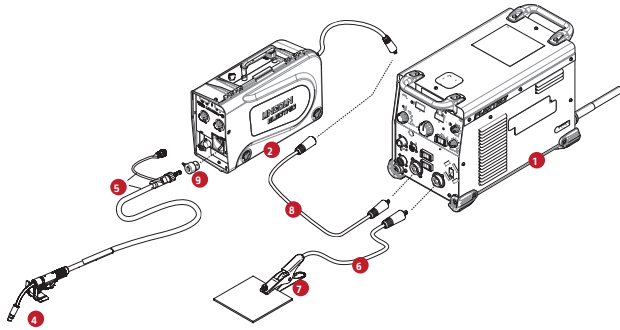
**Advantages provided by pulsing machines include:**

- Spatter and fume reduction
- Heat reduction
- Improved productivity
- Better control

## KEY SYSTEM CONFIGURATIONS

### Field Setup

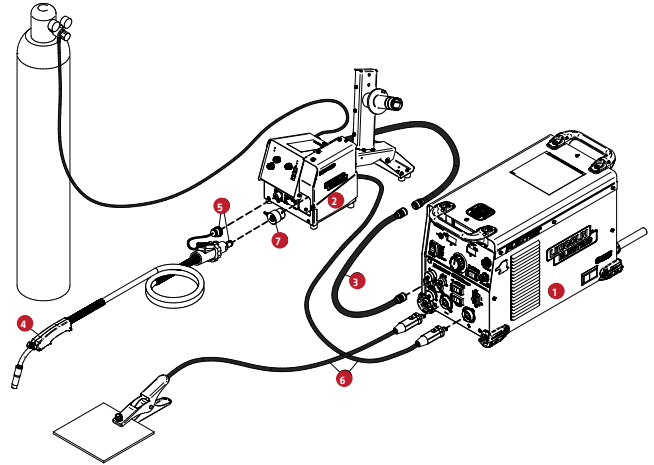
The Flextec 350X Construction was built to excel on site. When paired with a CrossLinc enabled accessory you can control the output right at the arc, without the need for extra cables.



| ITEM | DESC.             | K#   |                                |
|------|-------------------|--|--------------------------------|
| 1    | Machine           | Flextec 350XP or 350X Construction (8ft. power cord included)                          | K4272-2/K4271-2                |
| 2    | Feeder            | LN-25X with CrossLinc  | K4267-2                        |
| 3    | Control Cable     | None   | #N/A                           |
| 4    | Gun               | K126 Pro, 15 ft, full assembly   | K126-12                        |
| 5    | Gun Connector Kit | Tweco® #2 - #4 Gun back end for Magnum® PRO Guns                                       | K466-10 (Included with Gun)    |
| 6    | Work Cable        | Tweco-Style male plug and 0.53 in. lug, 2/0, 350A, 60% duty cycle, 50 ft. (15.2 m)     | K2484-2                        |
| 7    | Work Clamp        | GC 500 Work Clamp  | k910-2                         |
| 8    | Weld power Cable  | Tweco-Style male plug and female receptacle, 2/0, 350A 60% duty cycle, 50 ft. (15.2 m) | K2485-2                        |
| 9    | Feeder Bushing    | 10-Series Tweco #2 - #4  | K1500-2 (Included with Feeder) |

### Factory Pulse Setup

Pair the multi-process Flextec 350XP and 350X PowerConnect with almost any of Lincoln's bench top wire feeders to unlock their full potential. Connect an ArcLink capable feeder to access multiple synergic pulse modes. A synergic pulse system allows for incredible ease of use and improved productivity on many common materials. All the benefits of pulsed MIG with no hassle.



| ITEM | DESC.               | K#   |   |
|------|---------------------|--|---|
| 1    | Machine             | Flextec 350XP or 350X PowerConnect (8ft. power cord included)          | K4272-2/K4273-1                             |
| 2    | Feeder              | DLF-82   | K5282-xx                                    |
| 3    | Control Cable       | 5-pin ArcLink Cable  | K1543-xx (8 ft. cable included with feeder) |
| 4    | Gun                 | Magnum PRO Curve 350 HDE, 15 ft Ready-Pak, Tweco #4                    | K4532-2-10-45                               |
| 5    | Gun Connector Kit   | Tweco #2 - #4 Gun back end for Magnum PRO Guns                         | K466-10 (Included with Gun)                 |
| 6    | Work & Power Cables | Tweco to Lug w/Ground Clamp, 2/0, 15 ft work and 10 ft power 350A@60%. | K1803-2                                     |
| 7    | Feeder Bushing      | PF84 Series Tweco #2 - #4  | K3345-1 (Included with Feeder)              |

### Synergic Pulse Modes Flextec 350XP and Flextec 350X PowerConnect Models

| Wire Size | Wire Size |           |           |          |
|-----------|-----------|-----------|-----------|----------|
|           | Steel     | Stainless | Metalcore | Aluminum |
| 0.035     | •         | •         |           | •        |
| 0.040     | •         |           |           |          |
| 0.045     | •         | •         | •         |          |
| 3/64      |           |           |           | •        |
| 0.052     | •         |           | •         |          |
| 1/16      |           |           | •         | •        |

# FLEXTEC 350X Construction Controls »

1. Amperage Display
2. Thermal LED
3. CrossLink Indicator Light
4. Output Control Dial
5. Weld Process Selector Switch
6. Remote Output Control (12-pin Universal Connector)
7. Positive and Negative Welding Output Studs (Tweco-style)
8. Voltage Display
9. VRD™ (Voltage Reduction Device) Indicator Lights
10. Hot Start Control Dial
11. Arc Control Dial
12. Local/Remote Selector Toggle Switch
13. Power Switch



# FLEXTEC 350X XP/PowerConnect Controls »

1. Amperage Display
2. Thermal LED
3. Output Control Dial
4. Weld Process Selector Switch
5. Remote Output Control (12-pin Universal Connector)
6. 5-pin ArcLink Wire Feeder Connector
7. 14-pin Wire Feeder Connector
8. Positive and Negative Welding Output Studs (Tweco-style)
9. Voltage Display
10. VRD (Voltage Reduction Device) Indicator Lights
11. CrossLink Indicator Light
12. Hot Start Control Dial
13. Arc Control Dial
14. Local/Remote Selector Toggle Switch
15. Weld Terminals On/Remote Selector Switch
16. Power Switch
17. Wire Feeder Voltmeter Polarity Selection Switch





## FLEXTEC MODEL SELECTION

|                                     | Flextec 350X Construction | Flextec 350XP   | Flextec 350X PowerConnect |
|-------------------------------------|---------------------------|-----------------|---------------------------|
| Input Power                         | 380-575/3/50/60           | 380-575/3/50/60 | 200-600/1/3/50/60         |
| CrossLinc Compatible                | •                         | •               | •                         |
| Multi-Process                       | •                         | •               | •                         |
| 12-Pin accessory Compatible         | •                         | •               | •                         |
| 14-Pin Analog Feeder Compatible     |                           | •               | •                         |
| Arlink Feeder (5-Pin) Compatible    |                           | •               | •                         |
| Pulse Capable (w/Arlink Feeder)     |                           | •               | •                         |
| PowerConnect (200-600VAC) 1/3-phase |                           |                 | •                         |

## ONE-PAK® PACKAGES

### WHAT'S INCLUDED

|                      | Description   | Product Number | Flextec 350X One-Paks®<br>shipped as single K# |         |         |         |         |
|----------------------|---|----------------|--|---------|---------|---------|---------|
|                      |   |                | K4274-6  | K4274-7 | K4274-8 | K3438-3 | K4278-3 |
| Multi-process Welder | Flextec 350X PowerConnect (Tweco)                                 | K4273-1        | •  | •       | •       |         |         |
|                      | Flextec 350XP (Tweco)   | K4272-2        |  |         |         | •       |         |
|                      | Flextec 350X Construction (Tweco)                                 | K4271-2        |  |         |         |         | •       |
| Wire Feeder Model    | LF-74 HD  | K2426-5        | •  |         |         |         |         |
|                      | Flex Feed 84 HD   | K5000-2        |  | •       |         |         |         |
|                      | LN-25X Tweco no flowmeter   | K4267-2        |  |         |         |         | •       |
|                      | Power Feed 84 HD, USB   | K3328-13       |  |         | •       | •       |         |
| Drive Rolls          | .045 Cored 2-roll   | KP1697-045C    |  |         |         |         | •       |
|                      | .035/.045 solid dual groove 4-roll                                | KP1505-1       | •  | •       | •       | •       |         |
| Accessories          | Magnum Pro Curve HDE 250 15ft                                     | K2951-2-10-45  | •  | •       | •       | •       | •       |
|                      | Tweco Cable Package - 10ft work with ground clamp, 10ft electrode | K1803-2        | •  | •       | •       | •       |         |
|                      | Harris Flowmeter Regulator and hose                               | 3100211        | •  | •       | •       | •       |         |

## READY-PAK® PACKAGES



### Flextec / DLF-82 Ready-Paks

Ready-Pak options come assembled, shipped on a pallet and ready to weld in minutes. Welding wire and shielding gas must be ordered separately

- K5335-1 Flextec 350XP / DLF-82 Ready-Pak
- K5336-1 Flextec 350XP PowerConnect / DLF-82 Ready Pak
- K5336-3 Flextec 350XP / DLF-82 Education Ready-Pak

\*For more information on Flextec / DLF-82 ready-pak packages, visit [lincolnelectric.com](http://lincolnelectric.com) or view E8.13



K3402-3 Flextec 350X Construction 4-pack Rack

K3403-3 Flextec 350XP 4-pack rack

K4726-1 Flextec 350X PowerConnect 4-Pack Rack



K4277-2 Flextec 350X Construction 6-pack rack

K4281-2 Flextec 350XP 6-Pack Rack

K4727-1 Flextec 350X PowerConnect 6-Pack Rack

RECOMMENDED ACCESSORIES

GENERAL OPTIONS



**Multi-Process Switch**

Easily change welding process and polarity without changing cables at the machine  
Order K3091-1



**Weld Cable Package**

2, 10ft. 2/0 cables with Tweco plug and lug. Also includes GC500 work clamp  
Order K1803-2



**Harris® Model 355 Flowmeter Regulator and Hose**

Includes 10 ft. (3.0 m) hose  
Order: 3100211



**Single Cylinder Inverter and Wire Feeder Cart**

Requires K4068-1 mounting bracket for LF, Flex Feed and Power Feed Feeders. Requires locking foot kit for Flexsecs  
Order K3059-4



**Dual Cylinder Inverter and Wire Feeder Cart**

Requires K4068-1 mounting bracket for LF, Flex Feed and Power Feed Feeders. Requires locking foot kit for Flexsecs  
Order K3059-5



**Inverter Cart Mounting Bracket Kit**

Use for mounting Flex Feed or Power Feed (to the K3059-4 inverter cart)  
Order K4068-1



**Flextec 350X Locking Foot Kit**

Allows the Flextec to lock to the inverter cart, Multi-Process Switch, Cool Arc® 55 water cooler  
Order K4424-1



**12-pin to 6-pin Adapter**

Allows 6-pin remote controls (K870, K963-3, K857, K4986-1) to be used with 12-pin Universal Connection  
Order K2909-1



Tweco-Style Plug (male, 1/0 Thru 2/0)  
Order K3416-70



LC-40 Tweco-Style Receptacle (female, 1/0 Thru 2/0)  
Order K3417-70



LC-40HD Tweco-Style Plug (male, 3/0 Thru 4/0)  
Order K3416-90



LC-40HD Tweco-Style Receptacle (female, 3/0 Thru 4/0)  
Order K3417-90

STICK OPTIONS



**CrossLinc Remote**

Adjust voltage or current at the arc. For CrossLinc-equipped welders. See publication MC16-137  
Order K4345-1



**Remote Output Control with 12-pin Universal Connector**

Permits remote adjustment of output  
Order K857-2 (25 ft.)  
Order K857-3 (100 ft.)

TIG OPTIONS



**Wireless Foot Pedal with 6-pin Amphenol®**

Permits remote adjustment of output(f)  
Order K4986-1



**Foot Amptrol with 12-pin Amphenol Connector (25 ft)**

Remote current control for TIG welding  
Order K870-2



**Hand Amptrol Rotary Track Style, 12-pin Amphenol (25 ft)**

Remote current control for TIG welding  
Order K963-4

WIRE FEEDER OPTIONS



**LN-25X**

Includes CrossLinc communication technology and TVT  
Order K4267-2



**Activ8X**

Compact, lightweight, portable feeder with CrossLinc Technology and TVT  
Order K3519-1  
(See Publication E8.107)



**Activ8X Pipe**

Only compatible with the PowerConnect  
Order K4717-1



**DLF-82**

Two drive roll digital ArcLink wire feeder for MIG, Pulsed MIG and Flux Cored welding in fabrication shop environments  
See Publication E8.12



**LF-74 Bench Model**

Four drive roll feeder designed for MIG and cored wire welding in job shop and manufacturing environments  
See Publication E8.11



**Flex Feed 74 HT**

Four drive-roll, high-torque, industrial semiautomatic wire feeder for general/structural fabrication  
See Publication E8.203



**Flex Feed 84 Single Bench**

Four drive roll feeder with heavy duty wire reel stand for general/structural fabrication  
See Publication E8.205



**Flex Feed 84 Dual Bench**

Four drive roll feeder with heavy duty wire reel stand and contactor for general/structural fabrication  
See Publication E8.206



**Power Feed 84, Heavy Duty Wire Reel Stand, U/I, USB**

Four drive roll, digital ArcLink semiautomatic industrial wire feeder built on a modular platform to be used in a variety of applications  
See Publication E8.268

(f) Requires the K2909-1 12-pin to 6-pin adapter if used with Flextec 500X



## MACHINE SPECIFICATIONS

| Product Number                             | Product Name                 | Input Power  | Rated Output Current/Voltage/<br>Duty Cycle | Input Current @Rated Output | Output Range             | Dimensions HxWxL in (mm)          | Weight lb (kg) |
|--|------------------------------|--|---|-----------------------------|--------------------------|-----------------------------------|----------------|
| K3441-2<br>[Twist Mate]<br>K4271-2 (Tweco) | Flextec 350X<br>Construction | 380/460/575<br>3-Phase<br>50/60 Hz                         | 350A/34V/60%                                | 18/17/17                    | 5-425A<br>Max OCV 80V DC | 17 x 13 x 23<br>(432 x 330 x 584) | 77 (34.9)      |
| K3442-2<br>[Twist Mate]<br>K4272-2 (Tweco) | Flextec 350XP                |  | 300A/32V/100%                               | 23/20/21                    |                          |                                   | 82 (37.1)      |
| K3443-1<br>[Twist Mate]<br>K4273-1 (Tweco) | Flextec 350X<br>PowerConnect | 200-208/220-<br>230/380-415/460/575<br>3-Phase<br>50/60 Hz | 350A/34V/60%                                | 45/40/23/19/15              | 5-350A<br>Max OCV 67V DC | 17 x 13 x 24<br>(432 x 330 x 609) | 84 (38.1)      |
|  |                              |  | 300A/32V/100%                               | 37/33/19/16/13              |                          |                                   |                |
|  |                              | 380-415/460/575<br>1-Phase<br>50/60 Hz                     | 350A/34V/60%                                | 39/32/26                    |                          |                                   |                |
|  |                              |  | 300A/32V/100%                               | 32/26/22                    |                          |                                   |                |
| 200-208/220-230<br>1-Phase<br>50/60 Hz     | 300A/32V/60%                 | 62/56  | 5-350A<br>Max OCV 67V DC                    |                             |                          |                                   |                |
|  | 270A/31V/100%                | 54/48  |   |                             |                          |                                   |                |
| K5422-1<br>[Twist Mate]                    | Flextec 350XP CE             | 380-400-415<br>3-Phase<br>50/60 Hz                         | 350A/34V/60%                                | 34/32/30                    | 5-425A<br>Max OCV 80V DC | 17 x 13 x 24<br>(432 x 330 x 609) | 84 (38.1)      |
|  |                              |  | 300A/32V/100%                               | 31/26/25                    |                          |                                   |                |

For best welding results with Lincoln Electric equipment, always use Lincoln Electric consumables. Visit [www.lincolnelectric.com](http://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.

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](http://www.lincolnelectric.com) for any updated information.



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[www.lincolnelectric.com](http://www.lincolnelectric.com)