

FLEXTEC® 350X

SIMPLE. RELIABLE. FLEXIBLE.



Construction Model

XP Model

PowerConnect® Model

Built to Perform—Anywhere the Job Takes You

From the shop to the field, the Flextec® 350X family delivers reliable, high-performance multi-process welding. Engineered for extreme conditions, long-term productivity, and modern connectivity—backed by an industry-leading warranty with no out-of-pocket costs on parts or labor for 5 years.

Key Features Across the Family:

CrossLinc® Technology: Remote output control without control cables for cleaner, safer worksites

Rugged & Durable: IP23-rated and Desert Duty® certified for harsh outdoor use

Multi-Process: Stick, TIG, MIG, flux-cored, and gouging with consistent arc performance

Built to Last: Fewer moving parts and robust internal design for durability

Industry-Leading Warranty – 5 years of hassle-free coverage, including parts and labor, with a fast, simple claims process

Model Highlights:

350X Construction: Field-ready with exceptional arc stability; ideal for structural, pipeline, and industrial work

350XP: Shop-focused with full 42V feeder compatibility and Arclink® support for advanced digital control

350X PowerConnect™: Auto-adapts to 200–600V, single or three-phase—ideal for variable power conditions

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®)
K3443-2 Flextec 350X PowerConnect (Twist Mate)
K4273-2 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.

INDUSTRY LEADING
5-YEAR
STANDARD
WARRANTY



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^[1]
- PowerConnect technology automatically adjusts to the input voltage without the need for a manual reconnect^[2]

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
- Backed by a full 5-year warranty

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^[3]
- Touch-Start TIG® for reducing contamination during starts without high frequency

^[1] When paired with a CrossLinc technology enabled wire feeder or CrossLinc remote.

^[2] Available in the K4273-2 PowerConnect model.

^[3] 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.

Simple Mode Switch

Choose your weld process:
GTAW (TIG)
SMAW (Stick)
CV – gas shielded (MIG)
CV-Innershield® (self-shielded)
ArcLink for access to synergic and pulse modes (when using an ArcLink wire feeder)
Carbon Arc Gouge in Stick or MIG modes

Large Output Control

Located front and center

Remote Control Connection

Plug in for remotes

Welding Terminals

Clearly labeled, quick connections

Dedicated Hot Start

Adjustable to help reduce sticking when stick welding



Local/Remote rocker switch

Choose to have control locally on the machine or remotely when using a wire feeder or remote control

Dedicated Arc Control

Less arc control (less pinch) in short arc wire processes to decrease spatter
More arc control in Stick welding reduces chance of sticking during welding

RELIABLE

Flextecs 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

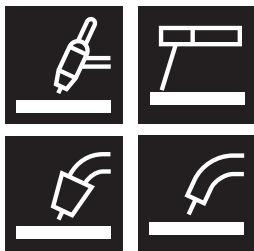


FLEXIBLE

Flextecs 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*



*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.

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.





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

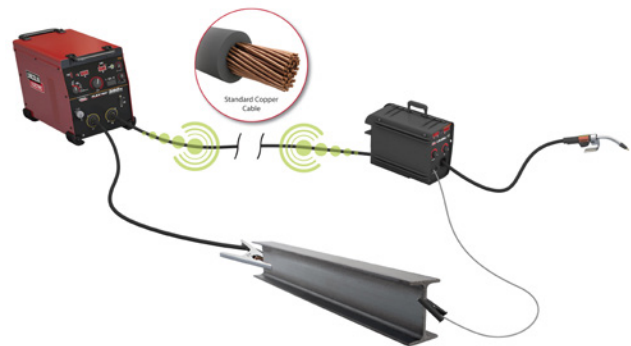


Productivity

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

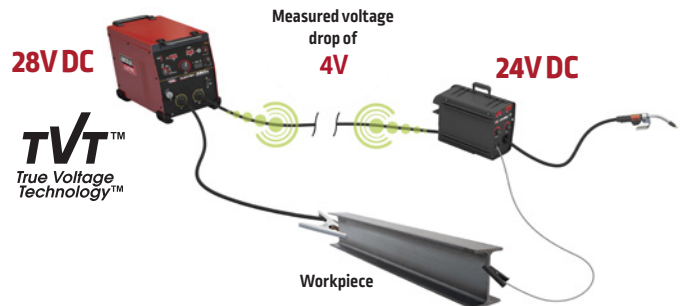
CrossLinc allows for amperage and voltage control at the welding arc to improve control of your operation.

- 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

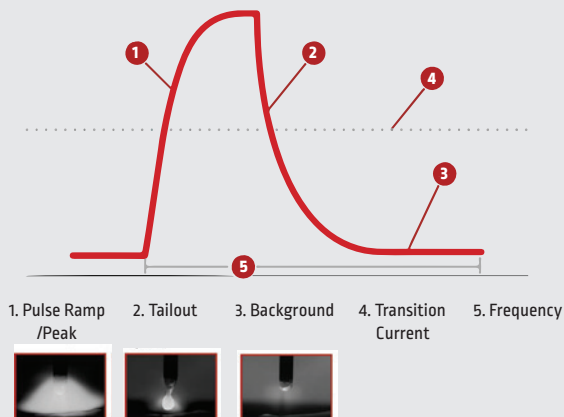


CrossLinc also features True Voltage Technology to compensate for voltage drop across the welding circuit.

- 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.

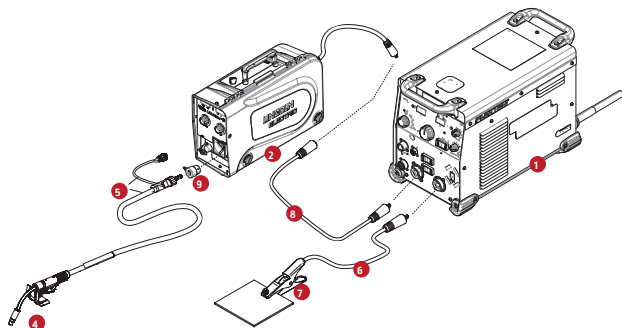
Advantages provided by pulsing machines include:

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

KEY SYSTEM CONFIGURATIONS

Field Setup

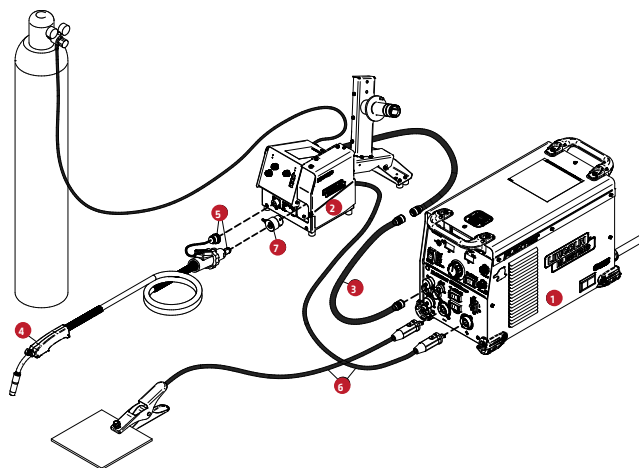
The Flextec 350X Construction was built to excel on site. When paired with a CrossLink enabled accessory you can control the output right at the arc, without the need for extra cables.



	ITEM	DESC.	K#
1	Machine	Flextec 350XP or 350X Construction (8ft. power cord included)	K4272-2/K4271-2
2	Feeder	LN-25X with CrossLink	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/K4273-2
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. CrossLink Indicator Light
4. Output Control Dial
5. Weld Process Selector Switch
6. Remote Output Control (12-pin Universal Connector)
7. 5-pin ArcLink Wire Feeder Connector
8. 14-pin Wire Feeder Connector
9. Positive and Negative Welding Output Studs (Tweco-style)
10. Voltage Display
11. VRD (Voltage Reduction Device) Indicator Lights
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	•	•	•
5-Year Warranty	•	•	•
12-Pin accessory Compatible	•	•	•
14-Pin Analog Feeder Compatible		•	•
Arclink Feeder (5-Pin) Compatible		•	•
Pulse Capable (w/Arclink Feeder)		•	•
PowerConnect (200-600VAC) 1/3-phase			•

READY-PAK® PACKAGES



Flextec / DLF-82 Ready-Paks

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

- K5335-1 Flextec 350XP / DLF-82 Ready-Pak
- K5336-4 Flextec 350X Power Connect / DLF-82 Ready-Pak
- K5336-5 Flextec 350X Power Connect / DLF-82 Education Ready-Pak

*For more information on Flextec / DLF-82 Ready-Pak packages, visit lincolnelectric.com or view E8.13



K3402-3 Flextec 350X Construction 4-pack Rack

K3403-3 Flextec 350XP 4-pack rack

K4726-2 Flextec 350X PowerConnect 4-Pack Rack



K4277-2 Flextec 350X Construction 6-pack rack

K4281-2 Flextec 350XP 6-Pack Rack

K4727-2 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 Flexfecs
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 Flexfecs
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



LC-40

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

CrossLink Remote

Adjust voltage or current at the arc. For CrossLink-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(i)
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 CrossLink communication technology and TVT
Order K4267-2



Activ8X

Compact, lightweight, portable feeder with CrossLink 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

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

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

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, cutting equipment and EV charging systems. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications 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, or to provide engineering advice in relation to a specific situation or application. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

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