

# FLEXTEC® 350X

SIMPLE. RELIABLE. FLEXIBLE.



Construction Model

Standard 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 welder can be controlled from hundreds of feet away without expensive and inconvenient control cables. Desert Duty® and IP23 rated, it can withstand harsh outdoor conditions and outperform other welders in its 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 350X Standard model is built to work with all 42V feeders for your factory applications. It is also compatible with Arclink® digital feeders to provide synergic modes and memories for quick setup and seamless connectivity.

The Flextec 350X PowerConnect model adds the ability to weld with any input voltage between 200 and 600 volts and adds **basic pulsed MIG** output as a standard feature.

### Processes »

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

### Applications »

Fabrication, Construction, Shipbuilding, Structural, Pipe

### Output »



### Input »



### Product Number »

K4271-1 Flextec 350X Construction  
K4272-1 Flextec 350X Standard  
K4273-1 Flextec 350X Power Connect  
K4283-1 Flextec 350X Construction CE model  
K4284-1 Flextec 350X Standard CE model



\*Pulse and single phase only available on K4273-1 PowerConnect model

## 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

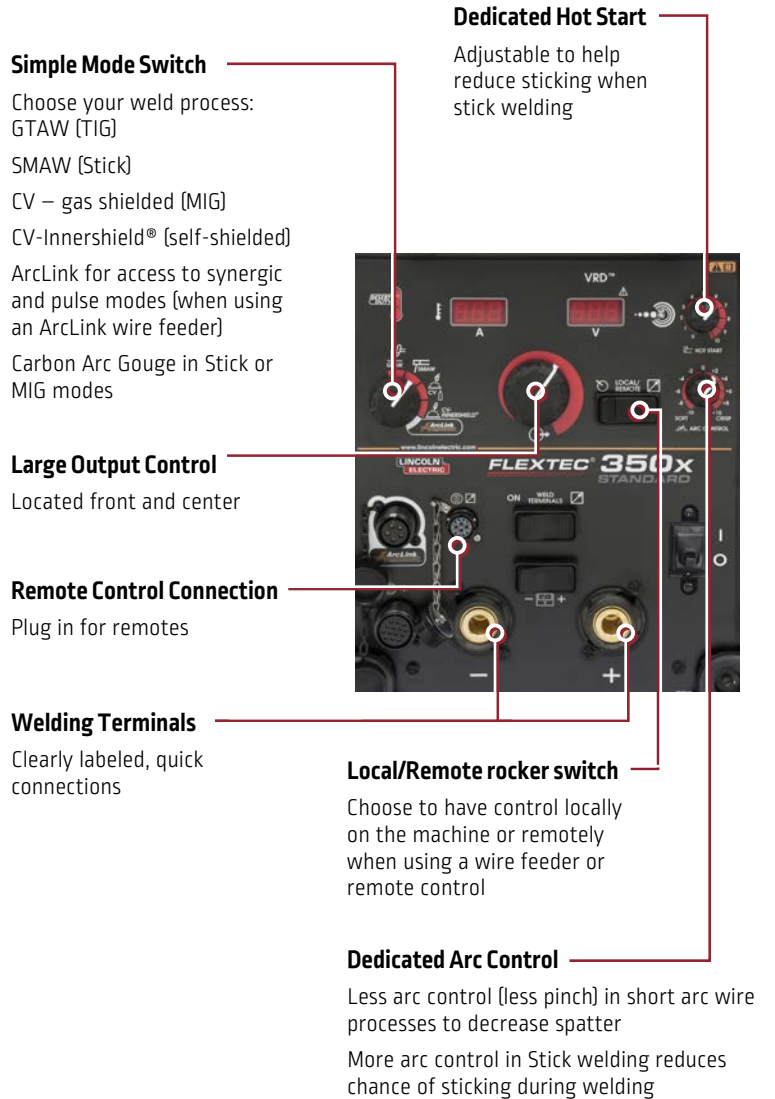
<sup>[1]</sup> Requires CrossLinc technology enabled wire feeder or CrossLinc remote.

<sup>[2]</sup> Requires K4273-1 PowerConnect model.

<sup>[3]</sup> Requires K4273-1 PowerConnect model and 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



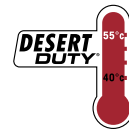
Trayed and potted PC boards for physical and environmental protection



**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

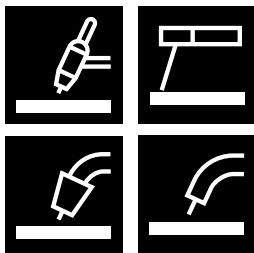
\*Variable speed smart fans are included in the PowerConnect model only.

# 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



## 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 to compensate 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

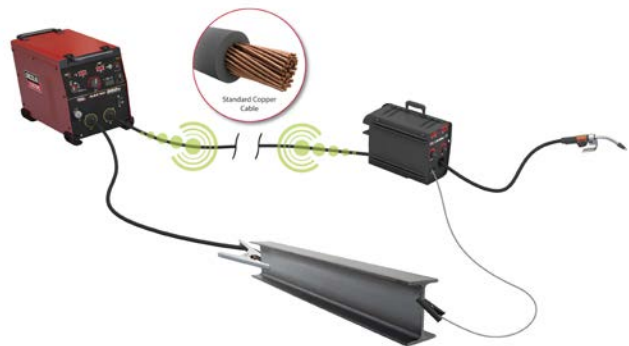


**Productivity**

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

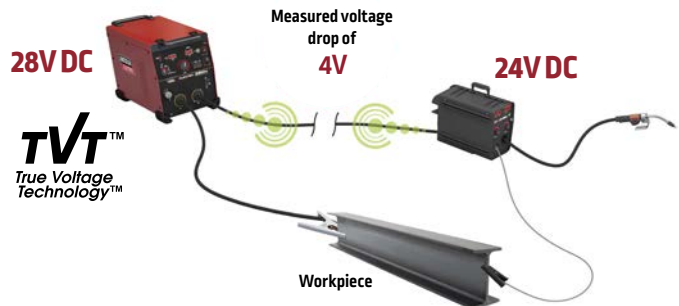
**CrossLinc allows for amperage and voltage control at the welding arc to improve control of your operation.**

- 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

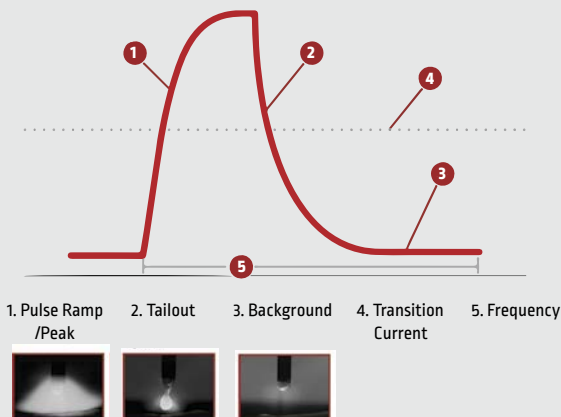


**CrossLinc also features True Voltage Technology to compensate for voltage drop across the welding circuit.**

- 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:**

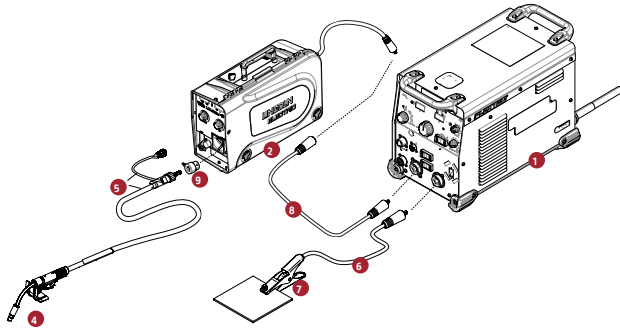
- Spatter and fume reduction
- Heat reduction
- Improved productivity
- Better control



## KEY SYSTEM CONFIGURATIONS

### Field Setup

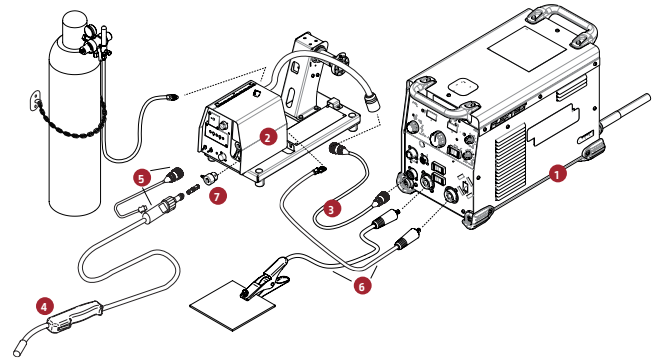
The Flextec 350X Construction was built to excel on site. When paired with a CrossLinc enabled accessory you can control the output right at the arc, without the need for extra cables.



ITEM	DESC.	K#	
1	Machine	Flextec 350X Standard or Construction (8ft. power cord included)	K4272-1/K4271-1
2	Feeder	LN-25X	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 Setup

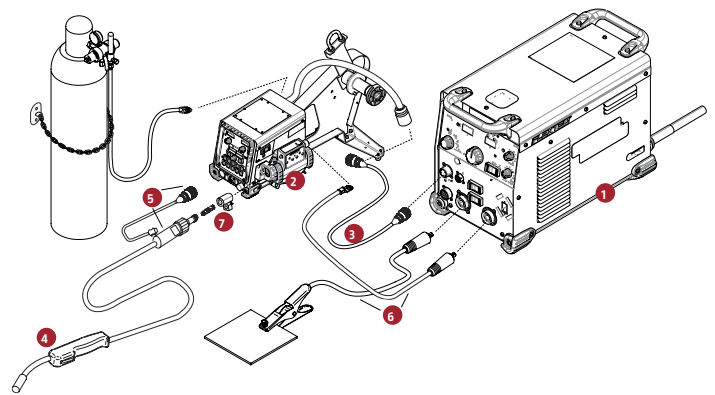
The flexible, multi-process Flextec 350X Standard is ready to satisfy all your fabrication needs.



ITEM	DESC.	K#	
1	Machine	Flextec 350X Standard (8ft. power cord included)	K4272-1
2	Feeder	LF-72 (HD No Gun)	K2327-7
3	Control Cable	14-pin Male to 14-Pin Female Extension	K1797-xx (10ft. cable included with feeder)
4	Gun	Magnum PRO Curve 300, 15 ft Ready-pak®, Tweco #4	K2951-2-10-45
5	Gun Connector Kit	Tweco #2 - #4 Gun back end for Magnum PRO Guns	K466-10 (Included with Gun)
6	Work & Power	Tweco to Lug w/Ground Clamp, 2/0, 15 ft work and 10 ft power 350A@60%.	K1803-2
7	Feeder Bushing	10-Series Tweco #2 - #4	K1500-2 (Included with Feeder)

### Pulse Setup

To unlock the full potential of the Flextec 350X PowerConnect welder, connect an ArcLink technology capable feeder. This will give you access to multiple synergic pulse modes. Synergic pulse modes give you all the benefits of pulsed MIG welding without any of the hassle.



### Synergic Pulse Modes (PowerConnect Model)

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

ITEM	DESC.	K#	
1	Machine	Flextec 350X PowerConnect (8ft. power cord included)	K4273-1
2	Feeder	PF-84 Single Bench HD	K3328-13
3	Control Cable	5-pin ArcLink Male to 5-pin ArcLink Female. Standard Duty	K1543-xx (8 ft. cable included with feeder)
4	Gun	Magnum PRO Curve 300, 15 ft Ready-Pak, Tweco #4	K2951-2-10-45
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)

## FLEXTEC 350X Construction 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. Positive and Negative Welding Output Studs (Tweco-style)
7. Voltage Display
8. VRD™ (Voltage Reduction Device) Indicator Lights
9. CrossLinc Indicator Light
10. Hot Start Control Dial
11. Arc Control Dial
12. Local/Remote Selector Toggle Switch
13. Power Switch



## FLEXTEC 350X Standard/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. CrossLinc 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



## WHAT'S INCLUDED

	Description	Product Number	Power Source Model							
			Flextec 350X PowerConnect Tweco [K4273-1]			Flextec 350X Standard Tweco [K4272-1]				Flextec 350X Construction Tweco [K4271-1]
Package Product No.	One-Pak® - shipped as single K#		K4274-1	K4274-2	K4274-3	K3438-1	K3439-1			K4278-2
	Ready-Pak - shipped fully assembled							K4540-1	K4540-2	
Wire Feeder Model	LF-72 HD	K2327-7				•		•		
	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	.035/.045 solid dual groove 2-roll	KP1696-1				•		•		
	.045 Cored 2-roll	KP1697-045C								•
	.035/.045 solid dual groove 4-roll	KP1505-1	•	•	•				•	
	.045 Solid 4-roll	KP1505-045S					•			
Accessories	Magnum Pro Curve 300 15ft	K2951-2-10-45	•	•	•	•	•	•	•	•
	Tweco Cable Package - 10ft work with ground clamp, 10ft electrode	K1803-2	•	•	•	•	•	•	•	
	Harris Flowmeter Regulator and hose	3100211	•	•	•	•	•	•	•	
	Inverter Cart	K3059-4					•	•	•	

	Description	Product Number
Additional Flextec Models	Flexec 350X PowerConnect (Twistmate)	K3443-1
	Flextec 350X Standard CE (Twistmate)	K4284-1
	Flextec 350X Construction (Tweco)	K4271-1
	Flextec 350X Construction CE (Twistmate)	K4283-1

\*All Flextec 350X models except the CCC Model (K3586-1) include 10-ft input cord

## Flextec Racks



K3402-1 Flextec 350X Construction 4-pack Rack

K3403-2 Flextec 350X Standard 4-pack rack



K4277-1 Flextec 350X Construction 6-pack rack

K4281-1 Flextec 350X Standard 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**



**Flextec350X CE Filter Kit**  
[380-575 Vac]  
**Order K4420-1**



**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, K4217-1) 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

**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 K4217-1**



**Foot Amptrul with 12-pin Amphenol Connector (25 ft)**  
Remote current control for TIG welding  
**Order K870-2**



**Hand Amptrul 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)**



**LF-72 Bench Model**  
Two drive roll feeder designed for MIG and cored wire welding in job shop and manufacturing environments  
**See Publication E8.11**



**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 74HT**  
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



## FLEXTEC 350X - MODEL SELECTION

	Features	Flextec 350X PowerConnect	Flextec 350X Standard	Flextec 350X Construction
Input	Input Power	200-600V/1/3/50/60	380-600/3/50/60	380-600/3/50/60
	3-phase	●	●	●
	1-phase	●		
Feeders	CrossLinc compatible feeders	●	●	●
	14-pin Analog, 42V feeders	●	●	
	5-Pin Digital, 42V feeders	●	●	
Processes	GTAW Touch Start TIG	●	●	●
	SMAW (Stick)	●	●	●
	GMAW (MIG)	●	●	●
	FCAW (Flux cored)	●	●	●
	FCAW-G (Gas shielded Flux-cored)	●	●	●
	GMAW-P (Pulsed MIG)	●		
	Gouging (Recommended)	1/4"	1/4"	1/4"

## 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)
K4271-1	Flextec 350X Construction	380/460/575 3-Phase 50/60 Hz	350A/34V/60%	18/17/17	5-425A	17 x 13 x 23 (432 x 332 x 584)	77 (34.9)
K4272-1	Flextec 350X Standard		300A/32V/100%	23/20/21			82 (37.1)
K4273-1	Flextec 350X PowerConnect	200-208/220-230/380-415/460/575 3-Phase 50/60 Hz	350A/34V/60%	45/40/23/19/15	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			
			270A/31V/100%	54/48			

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.

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



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