

# ADVANCED PROCESS WELDERS

- A Wide Variety of Welding Waveforms for Every Application
- Fast, Reliable Digital Communication
- Multi-Process Welding on a Variety of Materials

# Advanced Process Welders

Inverter Power Source

**Speedtec® 405SP, 505SP - Pulse**  
High output, reliable industrial machine



**Invertec® STT® II**  
Featuring Surface Tension Transfer® process



**Power Wave® C300**  
Portable Flexibility



Inverter Power Source

**Power Wave® S350 CE, S500 CE, S700 CE**  
Pulsed perfection, Modular flexibility



Advanced Module

**Power Wave® STT® Module**  
Add STT® Process Capability



**Power Wave® Advanced Module**  
Add AC and TIG HF Process Capability



	Mode	Polarity	Output Range (Amps)	Voltage (V)	Stick	TIG	MIG	MIG STT	MIG Pulse	Flux-cored	Gouging	Waveform Control technology®	ArcLink® Digital communications	Warranty (years)
<b>Inverter Power Source</b>	<b>OUTPUT</b>			<b>INPUT</b>	<b>PROCESS</b>						<b>FEATURES</b>			
Speedtec® 405SP	CC/CV	DC	20-400	400	●	●	●		●	●	●	■	■	3
Speedtec® 505SP			20-500		●	●	●		●	●	●	■	■	3
Invertec® STT® II	STT	DC	5-450 5-125	200/220/ 380/400/440				●				■		3
Power Wave® C300	CC/ CV	DC	5-300	230/400	●	●	●		●	●		■	■	3
Power Wave® S350			5-350		●	●	●	▲	●	●	●	■	■	3
Power Wave® S500			5-500		●	●	●	▲	●	●	●	■	■	3
Power Wave® S700			5-700	400	●	●	●	▲	●	●	●	■	■	3

	Mode	Polarity	Output Range (Amps)	Voltage (V)	Stick	AC/DC, Pulse, HF	MIG	MIG STT	AC	Flux-cored	Gouging	Waveform Control technology®	ArcLink® Digital communications	Warranty (years)
<b>Advanced Module</b>	<b>OUTPUT</b>			<b>INPUT</b>	<b>PROCESS</b>						<b>FEATURES</b>			
Power Wave® STT® Module	STT	DC	5-550	40V dc				●				■	■	3
Power Wave® Advanced Module	CC/CV	AC/DC	5-350		●	●			●			■	■	3

KEY: ○ Excellent ● Good ▲ Possible

# Speedtec® 405SP – Puls

# Speedtec® 505SP – Puls

## Vysoký výstup, spolehlivý průmyslový stroj

Řada Speedtec® je řešením pro průmyslové více-metodové aplikace. S modulární a kompaktní konstrukcí je tato svařovací sestava snadno přemístitelná po hale. Přemísťování je bez problémů díky nižší hmotnosti této nové konstrukce. S nejnovější vysokofrekvenční invertorovou technologií je oblouk přesně řízen, mnohokrát rychleji než u konvenčních analogových zdrojů proudu. Elektrické charakteristiky svařovacího výkonu mohou být změněny pomocí programu v reálném čase. Široká škála synergických programů je dostupná jako standard, umožňující jednoduché a přesné řízení svařovacích parametrů pro pokaždé nejlepší výsledek. Stroje Speedtec® využívají nejnovější technologie zdroje proudu pro účinnost a snížení spotřeby energie. Jejich pokročilá invertorová technologie ušetří jak čas, tak i energii. Vedení Lincoln Electric Zelenou iniciativou, máme za cíl snížit náklady i chránit životní prostředí. Tyto svařovací sestavy jsou dostupné jako 400 ampérové při 80% DZ nebo 500 A při 50% DZ (při 40°C). S podavačem PF46 podporuje svařovací sestava MIG/MAG metody se synergií pro ocel, nerez ocel, hliník a trubičkový drát. Svařování Lift TIG a obalenou elektrodou jsou dostupné ve standardu.

## Vlastnosti

- Metoda MIG/MAG puls pro nižší rozstřík, nízké vnesené teplo a aplikace svařování v polohách, činí takřka každého operátora lepším svářečem!
- Vynikající chování oblouku při CV MIG/MAG & svařování obalenou elektrodou.
- Proměnné řízení indukance.
- Možnost synergie.
- Řízení paměti s nastavením limitů, zabezpečeno heslem (PF46).
- Plynulé řízení rychlosti podávání drátu a napětí.
- Dálkové ovládání na hořáku (u PF46 a volitelně u PF44).
- Přednastavení parametrů (kromě PF40) & multiprocedura (PF46).



## Technické údaje

Název výrobku	Číslo výrobku	Vstupní napětí (50-60Hz)	Rozsah proudu (A)	Jmenovitý výstup	Typ pojistky rG nebo Jistič Typ Z	Hmotnost (kg)	Rozměry VxŠxD (mm)	Třída ochrany
Speedtec® 405SP (Puls)	K14117-2	400V/3f	20-400	400A/34V/80%	32A	50	535x300x635	IP23
Speedtec® 505SP (Puls)	K14116-2		20-500	500A/39V/50%				

## Technické údaje podavačů drátu

Název výrobku	Číslo výrobku	Kladky	Chlazení	Napájení	Výstupní proud při dov. zat.	Rozsah rychlosti podávání drátu (m/min)	Rozsah průměru drátu (mm)		Hmotnost (kg)	Rozměry VxŠxD (mm)
							Plný	Trubičkový		
PF-40	K14106-1	4	vzduch/ voda	40V stejnosm.	500A při 60%	1.0-2.2	0.8-1.6	1.0-1.6	17	460x300x640
PF-42	K14107-1								18	
PF-44	K14108-1								18,5	
PF-46	K14109-1								18,5	

### Metody

- Puls MIG/MAG
- MIG/MAG
- FCW ("Trubička")
- Obalená elektroda
- Lift TIG
- Drážkování



### Doporučené přídatné materiály

- **Ocel**  
Ultramag®, Supramig®, Supramig Ultra®
- **Trubičkový drát**  
Innershield® NR211-MP, Outershield® MC710-H
- **Nerez ocel**  
Lincoln MIG, LNM 304L, 316L, 309LSi
- **Hliník**  
SuperGlaze®

### Základní jednotka obsahuje

- Vstupní kabel 5 m
- Zemnicí kabel se svorkou 5 m

### Doporučené podavače drátu

- PF40, PF42, PF44, PF46

### Doporučená sada zahrnuje

- PF4X podavač
- Speedtec® zdroj proudu
- COOL ARC® 46 pro vodu chlazenou verzi
- Vozík
- Propojovací kabel 5 m,
- MIG hořák a regulační ventil

### Hlavní volby

- K10349-PG(W)-xM Propojovací kabely
- K10413-360GC-4M MIG hořák LG 360 GC s křížovým přepínačem - 4 m
- K10413-420GC-xM MIG hořák LG 420 GC s křížovým přepínačem - 3/4/6 m
- K10413-505WC-4M MIG hořák LG 505 WC s křížovým přepínačem - 4 m
- K14096-1 Vozík Speedtec
- K14105-1 Vodní chladič COOL ARC® 46
- K10420-1 Chladičí kapalina Acorox (2x5l)
- K14130-1 Komunikační rozhraní ST
- K14121-1 Uživatelské rozhraní "U2"
- K14122-1 Uživatelské rozhraní "U4"
- K14123-1 Uživatelské rozhraní "U6"
- K14124-1 Škříňka pendant (12-pinů)
- K14125-1 Sada 12-pin zásuvka (F)
- K14131-1 Arclink-T Flex
- K14132-1 Adaptér 5-pin(M)/12-pin(F)
- K14135-1 Arclink-T-Power
- K14120-1 Sada 6-pin zásuvka (F)



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

### VSTUP



### VÝSTUP



# Invertec® STT® II

## Featuring Surface Tension Transfer® process

The revolutionary STT® II power source combines high frequency inverter technology with advanced Waveform Control® to provide a better welding solution than traditional short arc MIG.

### Features

- Controlled penetration and outstanding heat input control - ideal for welding joints with open root, gaps, or on thin material with no burnthrough.
- Reduced spatter and fumes - current is controlled to achieve optimal metal transfer.
- Various shielding gases - blends of Argon including Helium or 100% CO<sub>2</sub> with larger diameter wires.
- Good bead control and faster travel speeds - can replace TIG in many applications.
- Background and Tailout Current - accurately control fine and coarse heat input for reduced distortion and burnthrough as well as proper penetration.
- Adjustable Hot Start controls the heat at the start of the weld.



- Fully featured; the LF 33 features 2/4 stoke, burnback, gas purge, cold inch, run in.
- Meets IEC974-1, ROHS and CE standards for safety and reliability.

### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Fuse Size (A) (slow)	Weight (kg)	Dimensions HxWxD (mm)	Protection/Insulation Class
STT II	K1527-3	200/220/380/400/440V/3Ph	5-450 (peak) 5-125 (background)	225A/29V/60% 200A/28V/100%	32	59	589 x 336 x 620	IP23 / H
STT II Package	PSTT2-A-1					75	995 x 920 x 980	
STT II	K1527-4	400V/3Ph				59	589 x 336 x 620	

**Processes**

- MIG STT®

**Recommended Packages Include**

- LF-33 or 37 wire feeder 4-roll air-cooled, 1.0-1.2mm drive roll
- STT® II power source on undercarriage, input cable, work clamp and cable assembly
- 5 m-Interconnection cable, MIG gun and gas regulator

**Key Options**

- K10370-PG-xM Interconnection cables
- K10413-15-xM MIG gun LG 150 G - 150A - 3/4/5 m
- K10413-25-xM MIG gun LG 250 G - 200A - 3/4/5 m
- K10413-24-xM MIG gun LG 240 G - 220A - 3/4/5 m
- K10413-26-xM MIG gun LG 260 G - 260A - 3/4/5 m
- K14094-1 Remote control - 15 m
- K10158-1 Readi-reel mounting stand (15 kg)



# Power Wave® C300

## Portable Flexibility

The Power Wave® C300 is a part of a modular concept offering many different configurations and allowing to adjust the machine to your welding application. All Power Waves® come complete with an Ethernet connection and free software. Free software updates available on [www.powersoftware.com](http://www.powersoftware.com)

### Features

- Superb arc welding characteristics in Pulse, Pulse on-Pulse®, CV, Stick and TIG DC.
- A variety of materials are supported as standard; Steel, Stainless, Aluminium but also High Nickel and CuSi.
- RapidArc® for a higher travel speed and less Heat Input with steel and Stainless.
- PowerMode® reduces spatter and improves appearance even of low voltage applications on steel & stainless steel, also beneficial for high deposition on aluminium.
- S2F for premium Aluminium welding.
- Clearing Pulse providing a clean wire tip without a ball, ready to restart.
- Job control to store your settings and quick recall. Limits



- and access through a password are as standard supported.
- Remote on the gun by use of a cross switch allows you to switch to another job of decrease or increase WFS during welding.
- Water Cooled when combined with COOL ARC® 50 water cooler.



### Technical Specifications

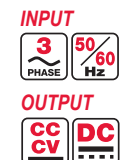
Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Fuse Size (A) (slow)	Weight (kg)	Dimensions HxWxD (mm)	Protection/Insulation Class
Power Wave® C300	K2865-1	230/400V/3Ph (208-575V)	5-300	300A/29V/40%	40/25	50.4	478 x 356 x 610	IP23 / H

**Processes**

- Pulse MIG
- Pulse-On-Pulse®
- MIG
- Flux-Cored
- Stick
- Lift TIG DC

**Key Options**

- GRD-400A-70-xM Ground cable 400A - 70 mm<sup>2</sup> - 5/10/15 m
- K10413-36-xM MIG gun LG 360 G - 320A - 3/4/5 m
- K10413-42-xM MIG gun LG 420 G - 380A - 3/4/5 m
- K10413-410-xM MIG gun LG 410 W - 350A - 3/4/5 m
- K10413-500-xM MIG gun LG 505 W - 450A - 3/4/5 m
- K10413-360GC-4M MIG gun LG 360 GC with cross switch - 4 m
- K10413-420GC-xM MIG gun LG 420 GC with cross switch - 3/4/6 m
- K10413-505WC-4M MIG gun LG 505 WC with cross switch - 4 m
- KP1696-x Drive roll kit range
- KP1697-x Drive roll kit range
- K14050-1 Water cooler COOL ARC® 50
- K10420-1 Coolant Acorox (2x5l)
- K14087-1 Cart



# Power Wave® S350 CE, S500 CE, S700 CE

## Pulsed perfection, Modular flexibility

The Power Wave® S350 and S500 are part of a modular concept offering many different configurations allowing to adjust the machine to diverse welding application. The most powerful Power Wave S700 supports high deposition welding also available in Tandem Mig system. The new platform communicates with ArcLink® allowing to work with all digital feeders from the PF4X to PF84. All Power Wave® come complete with an Ethernet connection. You can get access to the machine by using this connection and our free software. Updates are free of charge; our website powerwavesoftware.com contains the latest version of software including weldmodes.

### Features

- Superb arc welding characteristics in Pulse, Pulse on-Pulse®, CV, Stick and TIG DC.
- A variety of materials are supported; Steel, Stainless, Aluminium but also High Nickel and CuSi.
- RapidArc®, & Rapid X™ for a higher travel speed and less Heat Input with Steel and Stainless.
- PowerMode® reduces spatter and improves appearance even of low voltage applications on steel & stainless steel, also beneficial for high deposition on aluminium.
- S2F for premium Aluminium welding.
- Clearing Pulse providing a clean wire tip without a ball, ready to restart.
- STT module is available transforming the machine into a STT/Pulse welding machine.
- Water Cooled when combined with the COOL ARC® 50 (50C) water cooler.
- Meets IEC974-1, ROHS and CE standards for safety and reliability.



#### Processes

- Pulse MIG
- Pulse-on-Pulse MIG
- MIG
- Flux-Cored
- Stick
- Lift TIG
- Gouging

#### Recommended Wire feeders

- PF40, PF42, PF44, PF46, PF84, PF84 Dual

#### Recommended Packages Include

- PF4X wire feeder
- Power Wave® power source, Input cable, Work clamp and cable assembly + CoolArc® 5X for water cooled version
- 5 m-Interconnection cable, MIG gun and gas regulator

#### Key Options

- **GRD-400A-70-xM** Ground cable 400A -70 mm<sup>2</sup> - 5/10/15 m
- **K10349-PG(W)-xM** Interconnection cables
- **K10413-36-xM** MIG gun LG 360 G - 320A - 3/4/5 m
- **K10413-42-xM** MIG gun LG 420 G - 380A - 3/4/5 m
- **K10413-410-xM** MIG gun LG 410 W - 350A - 3/4/5 m
- **K10413-500-xM** MIG gun LG 505 W - 450A - 3/4/5 m
- **K10413-360GC-4M** MIG gun LG 360 GC with cross switch - 4 m
- **K10413-420GC-xM** MIG gun LG 420 GC with cross switch - 3/4/6 m
- **K10413-505WC-4M** MIG gun LG 505 WC with cross switch - 4 m
- **K2921-1** STT Module
- **K14050-1** Water cooler COOL ARC® 50
- **K14050-2** Water cooler COOL ARC® 50C (PW S700)
- **K10420-1** Coolant Acorox (2x5l)
- **K14085-1** Cart
- **K2444-3** CE Filter (PW S700)
- **K3004-1** Autodrive 19
- **K3171-1** Autodrive 19 Tandem
- **K2827-1** DeviceNet Kit (S350,S500)
- **K3001-1** Optional kit (UI, solenoid kit, 12-pin board)
- **K14121-1** User Interface "A+ "
- **K14122-1** User Interface "B"
- **K14123-1** User Interface "B+"
- **K14124-1** Pendant box (12-pins)
- **K14125-1** Kit 12-pin socket (F)
- **K14131-1** ArcLink-T Flex
- **K14132-1** Adapter 5-pin(M)/12-pin(F)



### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Fuse Size (A) (slow)	Weight (kg)	Dimensions HxWxD (mm)	Protection/Insulation Class
Power Wave® S350 CE	K2823-2	400V/3Ph (380-575V)	5-350	350A/31,5V/40%	40/25A	46,6	518 x 356 x 630	IP23 / H
Power Wave® S500 CE	K3168-1		5-500	500A/39V/60%	90/60A	68	570 x 356 x 630	
Power Wave® S700 CE**	K3279-1	230/400V/3Ph (208-575V)*	5-700	700A/44V/100%	90A	181	765 x 485 x 932	

### Technical Specifications of Wire Feeders

Product	Item Number	Drive Roll	Cooling	Input Power	Output Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
							Solid	Cored		
PF-40	K14106-1	4	A/W	40v dc	500A@60%	1,0-22	0,8-1,6	1,0-1,6	17	460 x 300 x 640
PF-42	K14107-1								18	
PF-44	K14108-1								18,5	
PF-46	K14109-1								18,5	



#### INPUT OUTPUT



# Power Wave® STT® Module Power Wave® Advanced Module

## Add STT® / AC and TIG HF Process Capability

Add STT® (Surface Tension Transfer®) process capability to any compatible Power Wave® S-Series and R-Series power source to gain outstanding puddle control for critical sheet metal or pipe root pass welding standard. Add AC TIG and MIG process capability to any compatible Power Wave® S-Series power source to gain outstanding performance for Aluminium welding.



### Features

- Exceptional Arc Control.
- UltimArc® - in synergic modes, it dynamically and simultaneously controls all heat input / arc parameters together. The result is easy procedure setting for the operator.
- Modular Design - allows easy connection and fast digital ArcLink® communication with compatible S-Series Power Wave® power sources, Power Feed® wire feeders and water coolers. Add STT® / AC and TIG capability without having to purchase a second power source.
- Compact Footprint – securely connects directly below Lincoln S-Series Power Wave® models, without taking valuable floor space.
- Self-Protecting Circuits – the module will protect itself from the excessive transient voltages associated with highly inductive weld circuits.
- Meets IEC974-1, ROHS and CE standards for safety and reliability.



#### Processes for Power Wave® STT® Module

- MIG-STT
- Power Wave® Advanced Module
- AC MIG Pulse
- AC TIG, AC TIG HF
- DC TIG, DC TIG HF
- DC TIG-P, DC TIG-P HF

#### Recommended Packages Include

- PF4X, 8X (Advanced Module) wire feeder
- Power Wave® power source, Input cable, Work clamp and cable assembly + COOLARC® 50 for water cooled version
- 5 m-Interconnection cable, MIG gun, Tig torch (Advanced Module) and gas regulator

### Technical Specifications

Product	Item Number	Input Voltage	Rated Output	Weight (kg)	Dimensions HxWxD (mm)	Protection Class
Power Wave® STT® Module	K2921-1	40V DC	500A/60%	21.3	292 x 353 x 630	IP23
Power Wave Advanced Module	K2912-1		350A/40%	32		

#### INPUT OUTPUT



### Accessories

## ACCESSORY KITS

### Cable kits (ground)

For Power Wave

Item n°:

- GRD-400A-70-5M (400A – 70 mm<sup>2</sup> – 5 m)
- GRD-400A-70-10M (400A – 70 mm<sup>2</sup> – 10 m)
- GRD-400A-70-15M (400A – 70 mm<sup>2</sup> – 15 m)



### Interconnection cables

Fast-mate (x2), gas hose, protection, (2.5, 5, 10, 15, 20, 25 & 30 m) (with cross switch)

Item n°:

For Speedtec 405SP/505SP & Power Wave

- K10349-PG-xM (air cooled)
  - K10349-PGW-xM (water cooled)
- For STT II
- K10370-PG-xM (air cooled)



## WATER COOLERS

### COOL ARC® 46

For Speedtec 405SP & 505SP  
For V350-PRO & DC400

Item n°: K14105-1

### COOLANT ACOROX (2x5l)

Item n°: K10420-1



## AUTODRIVE SYSTEMS

AutoDrive® 19 Controller Relays wire feed commands from a Power Wave® S-Series power source to any AutoDrive® Series robotic wire drive for automated welding operation.



AutoDrive® 19 Tandem Controller Relays wire feed commands from Power Wave® S-Series power source to any AutoDrive® Series robotic wire drive for automated tandem welding operations.



## MIG GUNS

### LINC GUN™ range

As standard these guns come with an ergonomic grip, springs on both sides of the cable, retractable pins and a "rotating ball joint" at the end of the gun grip.



### AIR COOLED

- LG 150G, 150A @ 60% K10413-15-xM 3m, 4m or 5m
- LG 250G, 200A @ 60% K10413-25-xM 3m, 4m or 5m
- LG 240G, 220A @ 60% K10413-24-xM 3m, 4m or 5m
- LG 260G, 260A @ 60% K10413-26-xM 3m, 4m or 5m
- LG 360G, 320A @ 60% K10413-36-xM 3m, 4m or 5m
- LG 420G, 380A @ 60% K10413-42-xM 3m, 4m or 5m
- LG 360G, 320A @ 60% (with cross switch) K10413-360GC-4M 4m
- LG 420G, 380A @ 60% (with cross switch) K10413-420GC-xM 3m, 4m or 6m



### WATER COOLED

- LG410W, 350A @ 100% K10413-410-xM 3m, 4m or 5m
- LG505W, 500A @ 100% K10413-500-xM 3m, 4m or 5m
- LG505W, 500A @ 100% (with cross switch) K10413-505WC-4M 4m



## DRIVE ROLL KITS

### 2 rolls

- KP1696-030S 0.6-0.8 mm
- KP1696-035S 0.9 mm
- KP1696-045S 1.2 mm
- KP1696-052S 1.4 mm
- KP1696-1/16S 1.6 mm



### 4 rolls

- KP1697-035C 0.9 mm
- KP1697-045C 1.0-1.2 mm
- KP1697-052C 1.4 mm
- KP1697-1/16C 1.6 mm
- KP1697-068 1.8 mm
- KP1697-5/64 2.0 mm
- KP1697-3/32 2.4 mm



## DEVICENET™ KIT

The kit allows DeviceNet™ connectivity to control the power source. Includes internal harness and 5-pin DeviceNet™ receptacle for mounting on power source back panel.

