



# Welding & Cutting Equipment

PRODUCT CATALOGUE

**LINCOLN**<sup>®</sup>  
**ELECTRIC**

THE WELDING EXPERTS<sup>®</sup>

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

# NEW!



## Speedtec® 215C

MULTI-PROCESS WELDERS

P. 31

MIG

TIG

MMA

## VRTEX® Engage™

TRAINING EQUIPMENT

P. 79, 85-87

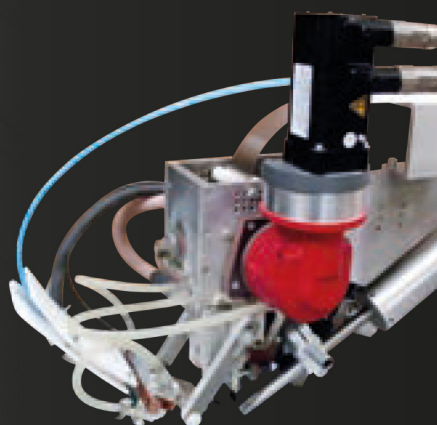


VRTEX® Engage™



VRTEX® Mobile

VRTEX® 360



## Strip Cladding

THE NEW DIMENSION IN STRIP CLADDING

P. 99-101



## Lens Technology 4C™

NEW RANGE OF WELDING HELMETS WITH 4C LENS TECHNOLOGY

P. 112-117





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# Using this catalogue

STICK WELDERS **1**
Inverter

## Invertec® 160SX **2**

**Professional Performance. Industrial Application **3****

The Invertec® 160SX is built to perform: rugged and reliable on one hand, portable and lightweight on the other. Lightweight and easy to handle in a wide variety of applications, it is ideal for professional industrial maintenance and small industrial projects, both on site and in workshops. Equipped with Power Factor Correction (PFC) Invertec® 160SX provides almost 30% output with the same input current. PFC reduces the power dissipation on input cables by up to 50%. Compliant with the latest European standard EN 61000-3-12.

**Features**

- More Power- 30% more output current with the same input current allows welding with up to 4.0mm electrode from a 16A input.
- Portable Everywhere - Lightweight, easy to handle, can operate with up to 30m extension cables and suitable to use from a generator.
- Robust Design, Industrial Use - Electrical safety (IP23), potted PCB boards and optimum airflow reduces contamination to extend the equipments life in the harshest environmental conditions.
- Excellent Welding Experience - Good arc ignition with a smooth stable arc, Soft and Crisp mode, Auto Adaptive Arc Force an optimum choice for welding with every type of electrode.
- Cellulosic Capability - No electrode is too difficult to weld with. Suitable for small diameter pipe welding.
- Extended Input Voltage Range - Smart switching input power allows use from either a single-phase 115v or 230v mains supply.
- Green Welding Initiative - PFC gives low current consumption, energy saving, low current harmonics and reduction of the total CO<sub>2</sub> produced by the welding process.

**Technical Specifications **11****

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Fuse (Slow)	Weight (kg)	Dimensions HxWxD (mm)	Protection/Insulation Class
Invertec® 160SX	K12019-1	115/230V/Ph	5-160	160A/26.4V@30% 100A/24V@100%	16A	9.2	224 x 148 x 385	IP23 / H

**NEW!**



**Processes **7****

- Stick
- Lift TIG

**Recommended Consumables **8****

- Steel
- Partalix® Omnia® 46, Basis® G, 120, 485P
- Stainless steel
- Arosta®, Limaroc® 304L, 316L, 309S
- Hardfacing
- WearShield® MM, M4 RepTec

**Unit Includes **9****

- 3m input cable

**Key Options **10****

- KIT-200A-25-3M Cable Kit 200A - 25mm<sup>2</sup> - 3m
- KIT-200A-35-5M Cable Kit 200A - 35mm<sup>2</sup> - 5m
- K10513-17-4V TIG Torch 17 GV - 4m
- K10513-17-8V TIG Torch 17 GV - 8m

**INPUT **12****

- 1 PHASE
- 1/3 PHASE
- 42 VAC
- 115 VAC
- 50/60 Hz

**OUTPUT **13****

- CC
- DC
- 40 VDC
- 10 kW

**Technical Specifications**

Product	Item Number	Primary Voltage (50-60Hz)
Invertec® V295-S	K12019-1	230/400V/Ph

### Color coding

Each section of the catalogue is color-coded













### Warranty









Warranty signs shown at every product

## Icons

### Output Icons

 For constant current stick and TIG processes	 Alternating current welding output	 2-Roll Wire Feeder	 Advanced wave-form control technology
 For constant voltage MIG, flux-cored and subarc processes	 Direct current welding output	 4-Roll Wire Feeder	
 For multi-process constant current or constant voltage applications	 Alternating or direct current welding output	 Continuous auxiliary power output	

### Input Icons

 Single phase input power	 Single or three phase input power	 42 Volt AC Wire feeder input power	 50/60 Hertz input power
 Three phase input power	 115 Volt AC Wire feeder input power	 40 Volt DC Wire feeder input power	 Engine Driven - Diesel

\*Photos and illustrations are non-contractual - they may differ from the actual product in details and colour.

- 1 Catalogue Section Tab**  
Identifies catalogue section for easy-to-find products.
- 2 Product Name**  
Official Lincoln product name.
- 3 Product Description**  
Brief description of the product.
- 4 Opening Paragraph**  
This is a general description of the product. It may also include features and applications.
- 5 Key Features**  
This section highlights the key features and benefits of the product.
- 6 Product Picture**  
Detailed photo of Lincoln products.
- 7 Processes**  
Recommended arc welding processes for the product.
- 8 Recommended consumables**  
See below for descriptions.
- 9 Unit Includes**  
These sections list options that are included for the product.
- 10 Key options**  
All options available.
- 11 Ordering**  
To order, select the product number that best fits your welding needs.
- 12 Green Initiative**  
Lincoln Electric awareness program to reduce environmental impact.
- 13 Input & Output Icons**  
See below for descriptions.
- 14 Technical Specifications**  
Common specifications, ratings, dimensions and weight of the product.
- 15 NEW! icon**  
Informs about new products.

From simple jobs to advanced applications,  
Lincoln Electric offers a full range of stick electrodes  
[www.lincolnelectric.eu](http://www.lincolnelectric.eu)







# STICK WELDERS

Versatile Stick Welders for Shop or Field  
Weld a Wide Range of Materials and Thicknesses  
Conventional or Inverter Models

# Stick Welders

Inverter

**Inverter® 135S, 150S, 170S**  
Small, powerful and robust



**Inverter® 160SX**  
Professional performance. industrial innovation



**Inverter® V205-S**  
Smart switching, full flexibility



**Inverter® 270SX, Inverter® 400SX**  
Professional welders for tough conditions



Conventional

**LINC 405-S & SA, LINC 406, LINC 635-S & SA**  
The rugged and distinguished workhorses



**Idealarc® R3R 600-I**  
Heavy duty stick welding and arc gouging



**HOT ROD 500S**  
The tough and powerful professional welder



	Mode	Polarity	Output Range (A)	Voltage (V)	Stick	Lift TIG	TIG Scratch	Arc Gouge	Auto-sensing/PFC	Hot Start	Arc Force	Meters	Warranty (years)
Inverter	OUTPUT			INPUT	PROCESS			FEATURES					
Inverter® 135S	CC	DC	10-120	230	●		○						2
Inverter® 150S	CC	DC	10-140	230	●	●				■	■		2
Inverter® 170S	CC	DC	10-160	230	●	●				■	■	■	2
Inverter® 160SX	CC	DC	5-160	115/230	●	●			■	■	■	■	3
Inverter® V205-S	CC	DC	5-200	230/400	●	●			■	■	■	■	2
Inverter® 270SX	CC	DC	5-270	400	●	●				■	■	■	3
Inverter® 400SX	CC	DC	5-400	400	●	●		○		■	■	■	3
Conventional													
LINC 405-S	CC	DC	15-400	230/400	●		○	○		■	■		2
LINC 405-SA	CC	DC	15-400	230/400	●	●		○		■	■	■	2
LINC 406	CC	DC	30-400	220/380/440	●		○	▲		■	■	■	2
LINC 635-S	CC	DC	15-670	230/400	●		○	▲		■	■		2
LINC 635-SA	CC	DC	15-670	230/400	●	●		▲		■	■	■	2
Idealarc® R3R 600-I	CC	DC	75-625	230/380/440	●		○	▲		■	■		3
HOT ROD 500-S	CC	DC	50-625	380/415 220/380/400	●		○	▲		■	■	■	3

KEY: ○ Excellent ● Good ▲ Possible



# Invertec® 135S, 150S, 170S

Small, powerful and robust

The Invertec® 135S, 150S and 170S offer a range of machines built with the job in mind. These stick machines are suited to a variety of applications and working environments, ensuring that there will be a machine to meet your needs. The design has been focused on providing excellent welding and starting behaviour in a robust and reliable package. Each unit is equipped with a unique set of features and capabilities to guarantee perfect welding for your application. Welding machines need to be tough. At Lincoln Electric, we know that modern equipment needs to be capable of handling harsh environmental conditions. That is why we have built this range in a robust metal case, with large rubber corners and push control buttons for added protection. Rugged and robust on one hand, portable on another, the Invertec® 135S, 150S and 170S are lightweight and easy to handle in any situation.

## Features

- Robust design: unique rubber corners and metal housing to withstand tough environmental conditions.
- Premium arc: advanced Lincoln technology and Lincoln know-how guarantees optimum performance every time.
- Power Surplus: additional power for superior arc control.
- Auto Adaptive Arc Force (150S and 170S).
- Built in "Hot Start" for stable arc with lower spatter level (150S and 170S).
- Long cables: primary power extension cables up to 60 m can be used with the 150S and 170S.
- Lift TIG with excellent striking without tungsten contaminations (150S and 170S).
- Portable lightweight, small and robust.



- Processes**
- Stick
  - Lift TIG (Invertec® 150S and 170S)
  - TIG Scratch (Invertec® 135S)
- Recommended Consumables**
- **Steel**  
Pantafix®, Omnia® 46, Baso® G, 120, 48SP
  - **Stainless steel**  
Arosta®, Limarosta®, Jungo® 304L, 316L, 309S
  - **Hardfacing**  
Wearshield® MM, ME / RepTec
- Unit Includes**
- 2 m input cable
  - Carrying strap
- Key Options**
- **KIT-140A-16-3M** Cable Kit 140A  
– 16 mm<sup>2</sup> – 3 m
  - **KIT-140A-25-5M** Cable Kit 140A  
– 25 mm<sup>2</sup> – 5 m
  - **K10529-17-4VS** TIG torch LTP 17 GV  
– 4 m



Pack version



Among other tests, the Invertec® 135S, 150S and 170S were subjected to extreme temperature environmental testing.



## Technical Specifications

Product	Item Number	Primary Voltage (50-60 Hz)	Current Range (A)	Rated Output	Fuse Size (A) (slow)	Weight (kg)	Dimensions HxWxD (mm)	Protection/Insulation Class
Invertec® 135S	K12033-1	230V/1Ph	10-120	120A/24.8V@25%	14	5.0	224 x 148 x 315	IP21 / F
	K12033-1-P			70A/22.8V@100%				
Invertec® 150S	K12034-1		10-140	140A/25.6V@30%	17	7.4	244 x 148 x 365	IP23 / F
	K12034-1-P			90A/23.5V@100%				
Invertec® 170S	K12035-1		10-160	160A/26.4V@35%	23	7.8	244 x 148 x 365	
	K12035-1-P			100A/24V@100%				



# Inverter<sup>®</sup> 160SX

## Professional Performance. Industrial Innovation

The Inverter<sup>®</sup> 160SX is built to perform: rugged and robust on one hand, portable in another. Lightweight and easy to handle in a wide variety of applications, it is ideal for professional industrial maintenance and small industrial projects, both on site and in workshops. Equipped with Power Factor Correction (PFC) Inverter<sup>®</sup> 160SX provides almost 30% output with the same input current. PFC reduces the power dissipation on input cables by up to 50%. Compliant with the latest European standard EN 61000-3-12.

### Features

- More Power- 30% more output current with the same input current allows welding with up to 4.0mm electrode from a 16A input.
- Portable Everywhere - Lightweight, easy to handle, can operate with up to 100m mains extension cables and suitable to use from a generator.
- Robust Design, Industrial Use - Electrical safety (IP23), potted PC boards and optimum airflow reduces contamination to extend the equipments life in the harshest environmental conditions.
- Excellent Welding Experience - Good arc ignition with a smooth stable arc, Soft and Crisp mode, Auto Adaptive Arc Force an optimum choice for welding with every type of electrode.
- Cellulosic Capability - No electrode is too difficult to weld with. Suitable for small diameter pipe welding.
- Extended Input Voltage Range - Smart switching input power allows use from either a single-phase 115V or 230V mains supply.
- Green Welding Initiative - PFC gives low current consumption, energy saving, low current harmonics and reduction of the total CO<sub>2</sub> produced by the welding process.



### 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
Inverter <sup>®</sup> 160SX	K12050-1	115/230V/1Ph	5-160	160A/26.4V@30% 100A/24V@100%	16A	9.2	224 x 148 x 385	IP23 / H

### Inverter

#### Processes

- Stick
- Lift TIG



#### Recommended Consumables

- **Steel**  
Pantafix<sup>®</sup>, Omnia<sup>®</sup> 46, Baso<sup>®</sup> G, 120, 48SP
- **Stainless steel**  
Arosta<sup>®</sup>, Limarosta<sup>®</sup>, Jungo<sup>®</sup> 304L, 316L, 309S
- **Hardfacing**  
Wearshield<sup>®</sup> MM, ME / RepTec

#### Unit Includes

- 3m input cable

#### Key Options

- **KIT-200A-25-3M** Cable Kit 200A – 25 mm<sup>2</sup> – 3 m
- **KIT-200A-35-5M** Cable Kit 200A – 35 mm<sup>2</sup> – 5 m
- **K10529-17-4V** TIG torch LTP 17 GV – 4 m
- **K10529-17-8V** TIG torch LTP 17 GV – 8 m

#### INPUT



#### OUTPUT



# Inverter<sup>®</sup> V205-S

## Smart switching, full flexibility

Manufactured using the latest digital inverter technology, combining both a rugged industrial construction with excellent arc characteristics. The lightweight but solid build of this machine makes it suitable for operation on site in conjunction with a generator or within a workshop environment, providing maximum flexibility. The smart switching 230/400V single phase enables connection of the V205S virtually everywhere.

### Features

- Smart switching 230/400V single phase.
- Excellent arc characteristics.
- Maximum output of 200A allows the use of electrodes up to 4.0 mm.
- Excellent stick rutile, basic and cellulosic welding performance.
- Adjustable "Arc Force" and "Hot Start" as standard.
- Features "Lift TIG" with no tungsten contamination.
- Fully featured and user-friendly control panel with digital display allow precise setting of welding current.



### 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
Inverter <sup>®</sup> V205-S	K12019-1	230/400V/1Ph	5-200	200A/28V@35% 170A/26.8V@100%	32/20	15	385 x 215 x 480	IP23S / H

### Inverter

#### Processes

- Stick
- Lift TIG



#### Recommended Consumables

- **Steel**  
Pantafix<sup>®</sup>, Omnia<sup>®</sup> 46; Baso<sup>®</sup> G, 120, 48SP
- **Stainless steel**  
Arosta<sup>®</sup>, Limarosta<sup>®</sup>, Jungo<sup>®</sup> 304L, 316L, 309S
- **Hardfacing**  
Wearshield<sup>®</sup> MM, ME / RepTec

#### Unit Includes

- 2m input cable
- Carrying strap

#### Key Options

- **KIT-200A-25-3M** Cable Kit 200A – 25 mm<sup>2</sup> – 3 m
- **KIT-200A-35-5M** Cable Kit 200A – 35 mm<sup>2</sup> – 5 m
- **K10529-17-4V** TIG torch LTP 17 GV – 4 m
- **K10529-17-8V** TIG torch LTP 17 GV – 8 m
- **K10095-1-15M** Remote control – 15 m
- **W0200002** Undercarriage

#### INPUT



#### OUTPUT





# Inverter<sup>®</sup> 270SX Inverter<sup>®</sup> 400SX

## Professional welders for tough conditions

The Inverter<sup>®</sup> 270SX & 400SX Stick and Lift TIG welders have been designed and manufactured to combine both a rugged industrial construction with excellent arc characteristics. The machines are built to handle harsh environmental conditions using Lincoln tunnel technology to separate the PCBs and sensitive parts from contaminating cooling airflow. The robust metal case with large protective rubber corners make them suitable for operation on site in conjunction with a generator, or within a workshop environment, providing maximum flexibility and durability. Intensive and extensive testing in the Lincoln lab guarantees the quality of these welders.



### Features

- Robust, built for heavy environmental conditions.
- Fully featured and user friendly control panel with digital display allows precise setting of welding current.
- Soft and Crisp mode: multiple arc modes for different electrode types.
- Auto Adaptive Arc force: standard in Soft and Crisp modes the automatic variable Arc Force operates when required.
- Adjustable Hot Start and Arc Force allow a smooth start/restart of the electrode and prevent sticking of the electrode in the weld pool.
- Features "Lift TIG" with no tungsten contamination.
- Maximum output of 270A and 400A allows the use of 5.0 mm (270SX) and 6.3 mm (400SX) electrodes.

### Processes

- Stick
- Lift TIG
- Gouging (400SX)



### Recommended Consumables

- **Steel**  
Pantafix<sup>®</sup>, Omnia<sup>®</sup> 46; Baso<sup>®</sup> G, 120, 48SP
- **Stainless steel**  
Arosta<sup>®</sup>, Limarosta<sup>®</sup>, Jungo<sup>®</sup> 304L, 316L, 309S
- **Hardfacing**  
Wearshield<sup>®</sup> MM, ME / RepTec

### Unit Includes

- 3 m input cable

### Key Options

- **KIT-250A-35-5M** Cable Kit 250A – 35 mm<sup>2</sup> – 5 m
- **KIT-300A-50-5M** Cable Kit 300A – 50 mm<sup>2</sup> – 5 m
- **KIT-400A-70-5M** Cable Kit 400A – 70 mm<sup>2</sup> – 5 m
- **K10529-17-4V** TIG torch LTP 17 GV – 4 m
- **K10529-17-8V** TIG torch LTP 17 GV – 8 m
- **K10095-1-15M** Remote control – 15 m
- **W0200002** Undercarriage (270SX)
- **K2694-1** Undercarriage (400SX)

### INPUT

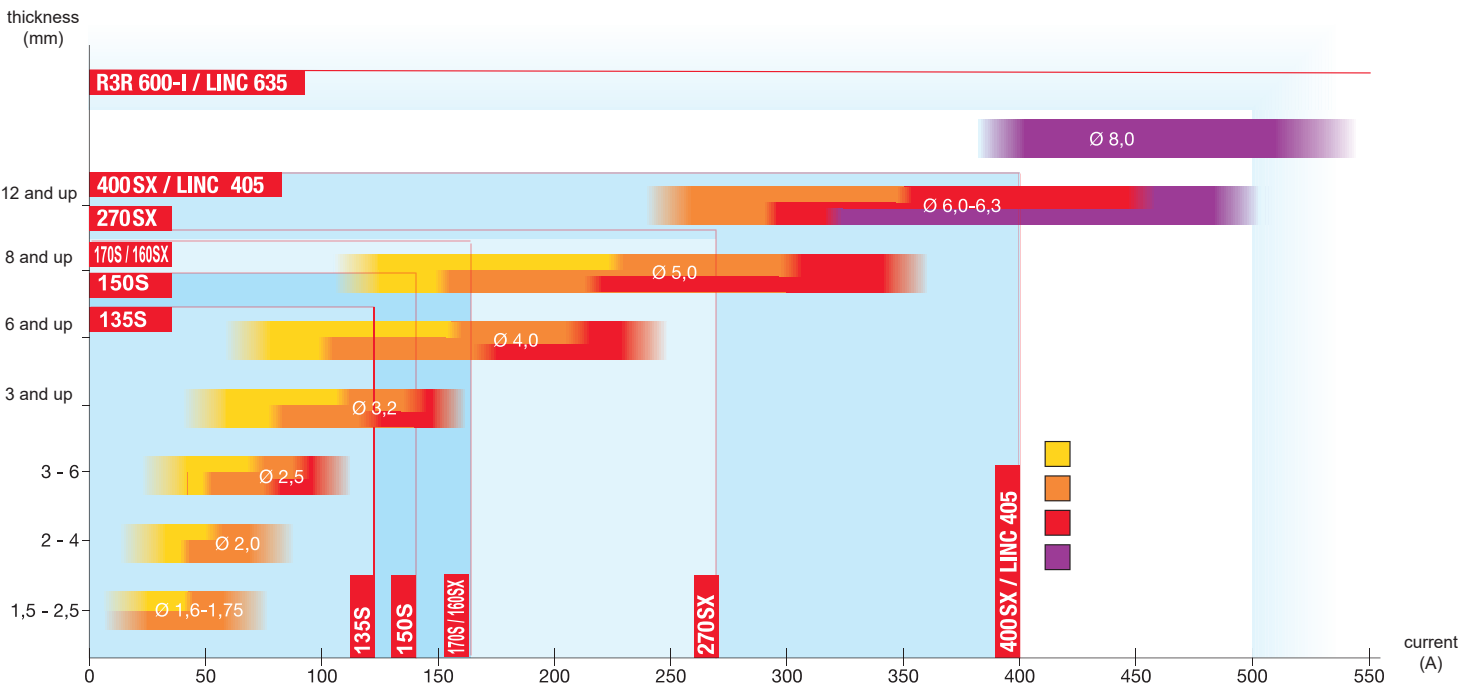


### OUTPUT



### 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
Inverter <sup>®</sup> 270SX	K12040-1	400V/3Ph	5-270	270A/30.8V/35% 200A/28V/100%	20	23.6	389 x 247 x 502	IP23 / H
Inverter <sup>®</sup> 400SX	K12042-1		5-400	400A/36V/35% 300A/32V/100%	30	36	455 x 301 x 632	



# LINC 405-S & SA, LINC 406 LINC 635-S & SA

## The rugged and distinguished workhorses

The LINC 405 and 635 are exceptionally rugged conventional stick rectifiers built to be used under harsh environmental conditions. The units are available in two versions:

- the basic LINC 405-S and LINC 635-S ready to support stick welding with all rutile, basic and cellulosic electrodes
- LINC 405-SA and LINC635-SA complete with the additional features of arc force, Hot Start and digital meters.

### Features

- Rugged conventional welding rectifier with excellent arc characteristics.
- Capable to weld Rutile, Basic and Cellulose electrodes.
- Arc gouging capability.
- Hot Start supporting excellent arc starting (SA & 406).
- Arc Force to prevent sticking of the electrode in the welding pool (SA & 406).
- Digital meters showing welding amperage (SA & 406).
- Easy to understand graphic control panels.
- Fan on demand (F.A.N.™) built-in reduces power and the intake of dust and fumes.
- Ready to be moved. Equipped with wheels, pull bar and two lifting hooks.
- Lift TIG DC capability (SA only).



#### Processes

- Stick
- Lift TIG DC (-SA)
- Gouging

#### Recommended Consumables

- **Steel**  
Pantafix®, Omnia® 46, Baso® G, 120, 48SP
- **Stainless steel**  
Arosta®, Limarosta®, Jungo® 304L, 316L, 309S
- **Hardfacing**  
Wearshield® MM, ME / RepTec

#### Unit Includes

- 5 m input cable

#### Key Options

- **KIT-400A-70-5M** Cable Kit 400A – 70 mm<sup>2</sup> – 5 m
- **GRD-400A-70-xM** Ground cable 400A – 70 mm<sup>2</sup> – 10/15 m
- **E/H-400A-70-xM** Electrode holder 400A – 70 mm<sup>2</sup> – 5/10 m
- **FL060180600-L** FLAIR 600 Gouging Torch
- **K10095-1-15M** Remote control – 15 m



### 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
LINC 405-S	K14002-2	230/400V/3Ph	15-400	400A/36V/35% 240A/29V/100%	63/40	126	640 x 580 x 700	IP23 / H
LINC 405-SA	K14002-1							
LINC 406	K14104-1	220/380/440V/3Ph	30-400	63/40/32	135	650 x 580 x 690		
LINC 635-S	K14038-2	230/400V/3Ph	15-670	670A/44V/35% 400A/36V/100%	100/63	150	670 x 580 x 700	
LINC 635-SA	K14038-1							





# Idealarc® R3R 600-I

## Heavy duty stick welding and arc gouging

Look to the R3R 600-I power source from Lincoln Electric for your heavy duty stick welding needs. Whether you're using mild steel, low hydrogen, stainless steel or hardfacing electrodes, the Idealarc® R3R 600-I produces a smooth, quality arc for consistent results day-in and day-out. 600A at maximum output gives the R3R600-I an excellent arc gouging behaviour. The R3R 600-I is also a proven DC TIG welder – simply add TIG accessories and a cylinder of shielding gas.



### Features

- Excellent arc characteristics for a wide range of electrode types.
- Maximum output of 600 amps allows the use of electrodes up to 6.3mm & gouging.
- Infinitely variable "Arc Force" and "Hot Start".
- Easy to operate – Calibrated current control knob makes procedure setting simple and easy.
- Polarity switch, voltmeter and ammeter are standard.
- Rugged case design for portability and impact resistance.
- Input voltage compensation.
- Thermostatic overload protection.

### 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
Idealarc® R3R600-I	K1381-2	230/380/400V/3Ph	75-625	600A/44V/35% 375A/35V/100%	103	209	700 x 565 x 840	IP23 / F

Conventional

### Processes

- Stick
- Gouging
- TIG



### Recommended Consumables

- **Steel**  
Pantafix®, Omnia® 46; Baso® G, 120, 48SP
- **Stainless steel**  
Arosta®, Limarosta®, Jungo® 304L, 316L, 309S
- **Hardfacing**  
Wearshield® MM, ME / RepTec

### Unit Includes

- 5m input cable

### Key Options

- **KIT-400A-70-5M** Cable Kit 400A – 70 mm<sup>2</sup> – 5 m
- **GRD-400A-70-xM** Ground cable 400A – 70 mm<sup>2</sup> – 10/15 m
- **E/H-400A-70-xM** Electrode holder, 400A – 70 mm<sup>2</sup> – 5/10 m
- **FL060180600-L** FLAIR 600 Gouging Torch
- **K10095-1-15M** Remote control – 15 m
- **K841** Undercarriage

### INPUT



### OUTPUT



# HOT ROD 500S

## The tough and powerful professional welder

The constant current welding rectifier HOT ROD 500-S is a three phase heavy duty power source with a current range of 50-625A. This machine is fan cooled and enclosed in a rigid case with removable side panels for convenient servicing, and on a frame suitable for stacking up to three machines. The control circuit compartment is totally potted for complete protection and located behind an inspection panel for easy access. The unit is completely weatherproof and designed for extreme environmental conditions.



Whether using mild steel, low hydrogen, stainless steel or hardfacing electrodes, the HOT ROD 500-S produces a smooth, quality arc for consistent results day-in day-out. If you need a reliable machine for arc air gouging, the HOT ROD 500S can help you do that too.

### Features

- Excellent arc characteristics for a wide range of electrode types.
- Maximum output of 625A allows the use of electrodes up to 6.3mm and air carbon gouging with 8 mm electrodes.
- Compatible with rutile, basic and cellulosic electrodes.
- Stackable case design with built-in lift hook allows easy storage and handling.
- Submersion dipped transformer assembly and fully potted Power Circuit Board for added corrosion and moisture protection.
- Input voltage compensation for constant output.
- Thermostatic overload protection.

### 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
HOT ROD 500S	K14089-1	380/415V/3Ph	50-625	600A/44V/35% 375A/35V/100%	63	203	795 x 566 x 813	IP23 / H
	K14089-2	220/380/400V/3Ph						

Conventional

### Processes

- Stick
- Gouging
- TIG



### Recommended Consumables

- **Steel**  
Pantafix®, Omnia® 46; Baso® G, 120, 48SP
- **Stainless steel**  
Arosta®, Limarosta®, Jungo® 304L, 316L, 309S
- **Hardfacing**  
Wearshield® MM, ME / RepTec

### Unit Includes

- 5m input cable

### Key Options

- **K10376** Adapter M14/DINSe
- **E/H-400A-70-xM** Electrode holder, 400A – 70 mm<sup>2</sup> – 5/10 m
- **GRD-600A-95-10M** Ground cable 600A – 95 mm<sup>2</sup> – 10 m
- **K14092-1** 48V AC socket (1500W) kit
- **K14090-1** A/V meter kit
- **FL060180600-L** FLAIR 600 Gouging Torch
- **K10095-1-15M** Remote control – 15 m

### INPUT



### OUTPUT



## ACCESSORY KITS

### Cable kits (ground/electrode)

with ground cable & electrode holder (clamp)

Item n°:

- KIT-140A-16-3M (140A – 16 mm<sup>2</sup> – 3 m)
- KIT-140A-25-5M (140A – 25 mm<sup>2</sup> – 5 m)
- KIT-200A-25-3M (200A – 25 mm<sup>2</sup> – 3 m)
- KIT-200A-35-5M (200A – 35 mm<sup>2</sup> – 5 m)
- KIT-250A-35-5M (250A – 35 mm<sup>2</sup> – 3 m)
- KIT-300A-50-5M (300A – 50 mm<sup>2</sup> – 5 m)
- KIT-400A-70-5M (400A – 70 mm<sup>2</sup> – 5 m)



### Cable kits (ground)

Item n°:

- GRD-400A-70-10M (400A – 70 mm<sup>2</sup> – 10 m)
- GRD-400A-70-15M (400A – 70 mm<sup>2</sup> – 15 m)
- GRD-600A-95-10M (600A – 95 mm<sup>2</sup> – 10 m)



## REMOTE CONTROLS

### 1 potentiometer, 6-pins, 15 m

Item n°:

K10095-1-15M

### 2 potentiometers (fine adjustment)

6-pins, 15 m (for use with R3R600-I)

Item n°:

K10124-1-15M

### Extension cable

Item n°:

K10398



## UNDERCARRIAGES

2-wheeled cart, delivered as a kit.

For use with V205S, 270SX

Item n°:

W0200002



4-wheeled undercarriage with gas

cylinder platform delivered as a kit. For use with 400SX.

Item n°:

K2694-1



## TIG TORCHES

The Linc Torch Premium (LTP) range is enhancing our current range of TIG torches, providing even better performance for the welder's comfort. Designed to meet the challenges of a variety of applications in maintenance, fabrication or construction sites, the new torches are offered in both air-cooled and water-cooled version.

### Linc Torch Premium LTP 17 GV,

#### manual valve

140A DC / 100A AC @ 35%

#### 10-25 mm<sup>2</sup> connector

- K10529-17-4VS LTP 17 G, 4 m

#### 35-50 mm<sup>2</sup> connector

- K10529-17-4V LTP 17 G, 4 m
- K10529-17-8V LTP 17 G, 8 m

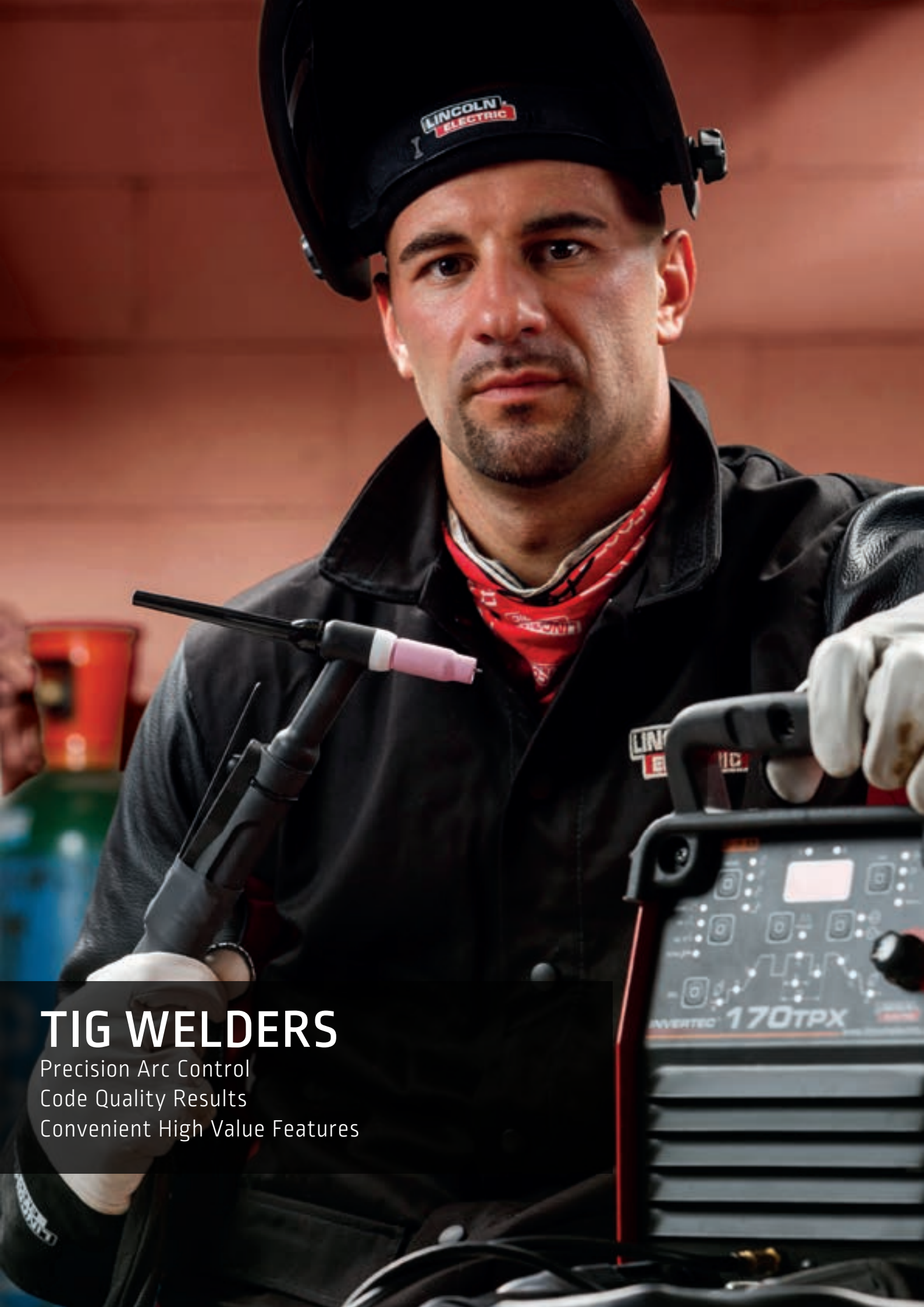


**LINCOLN**  
**ELECTRIC**  
THE WELDING EXPERTS®

LINCOLN ELECTRIC WELDING EQUIPMENT

**BUILT TO PERFORM**





# TIG WELDERS

Precision Arc Control  
Code Quality Results  
Convenient High Value Features

# TIG Welders

DC Inverter

**Invertec® V205-TP-2V**  
Smart switching, full flexibility



**Invertec® V270-T & TP**  
Designed and engineered for durability



**Invertec® 170TX & TPX, Invertec® 220TPX**  
Professional TIG welders for tough conditions



**Invertec® 300TPX, Invertec® 400TPX**  
Industrial TIG welders for tough conditions



AC/DC Inverter

**Invertec® V205-T AC/DC**  
Code quality AC/DC TIG welding



**ASPECT® 300**  
The TIG AC/DC new aspect!



DC Inverter		Mode	Polarity	Output Range (Amps)	Voltage (V)	Stick	Lift TIG	TIG HF	TIG PULSE	Auto reconnect	Power factor connector	Variable AC freq	Memory	Meters	Warranty (years)
DC Inverter		OUTPUT			INPUT	PROCESS				FEATURES					
1 phase inverters	Invertec® 170TX	CC	DC	5-170	230	●	●	●					■		3
	Invertec® 170TPX	CC	DC	5-170	230	●	●	●	●				■	■	3
	Invertec® V205-TP 2V	CC	DC	5-200	230/400	●	●	●	●	■				■	2
	Invertec® 220TPX	CC	DC	5-220	115/230	●	●	●	●		■		■	■	3
3 phase inverters	Invertec® V270-T	CC	DC	5-270	400	●	●	●						■	2
	Invertec® V270-TP	CC	DC	5-270	400	●	●	●	●					■	2
	Invertec® V270-TP 2V	CC	DC	5-270	230/400	●	●	●	●	■				■	2
	Invertec® 300TPX	CC	DC	5-300	400	●	●	●	●				■	■	3
	Invertec® 400TPX	CC	DC	5-400	400	●	●	●	●				■	■	3

AC/DC Inverter		Mode	Polarity	Output Range (Amps)	Voltage (V)	Stick	Lift TIG	TIG HF	TIG PULSE	Auto reconnect	Power factor connector	Variable AC freq	Memory	Meters	Warranty (years)
AC/DC Inverter		OUTPUT			INPUT	PROCESS				FEATURES					
AC/DC Inverter		CC	AC/DC	6-200	115/230	●	●	●	●		■	■	■	■	2
AC/DC Inverter		CC	AC/DC	2-300	230/400	●	●	●	●		■	■	■	■	3

KEY: ○ Excellent ● Good ▲ Possible



# Invertec® V205-TP-2V

## Smart switching, full flexibility

The Invertec® V205-T-Pulse is manufactured in a lightweight but robust outer casing, making it portable and ideal for operation, even in the most hazardous environments. The smart switching 230/400V single phase allows it to be utilised anywhere on site and workshops. It features HF TIG ignition, Lift TIG ignition, 2 or 4 step, variable down slope and postflow control, a digital pre-set meter with a Hold function and built-in Variable Pulse.

### Features

- Smart switching 230/400V single phase.
- HF and Lift TIG ignition.
- HIGH speed PULSE to adjust the arc focus, reduce distortion and increase travel speed.
- Excellent arc characteristics for rutile, basic and cellulosic electrodes up to 4.0 mm.
- Fan as needed (F.A.N.™) built-in reduces power and the intake of dust and fumes.



#### Processes

Stick  
Lift TIG / TIG HF  
TIG Pulse



#### Recommended Consumables

- **Steel**  
LNT 25, LNT 26, LNT Ni1, LNT 19
- **Stainless steel**  
LNT 304L, 316L, 309LSi

#### Unit Includes

- 2 m input cable
- Carrying strap
- Gas connection kit

#### Key Options

- **KIT-200A-25-3M** Cable Kit 200A  
– 25 mm<sup>2</sup> – 3 m
- **KIT-200A-35-5M** Cable Kit 200A  
– 35 mm<sup>2</sup> – 5 m
- **GRD-200A-35-xM** Ground cable 200A  
– 35 mm<sup>2</sup> – 5/10 m
- **K10529-17-x** TIG torch LTP 17 G  
– 140A – 4/8 m
- **K10529-20-x** TIG torch LTP 20 W  
– 220A – 4/8 m
- **K10095-1-15M** Remote control – 15 m
- **K12031-1** Water cooler COOL ARC® 20
- **K10420-1** Coolant Acorox (2x5l)
- **W0200002** Undercarriage



### 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
Invertec® V205-TP-2V	K12021-1	230/400V/1Ph	5-200	200A/28V/35% 170A/26.8V/100%	35/20	16.2	385 x 215 x 480	IP23S / H



# Inverter<sup>®</sup> V205-T AC/DC

## Smart switching, full flexibility

The Inverter<sup>®</sup> V205-T AC/DC is ideal for critical AC or DC TIG welding applications. This full featured TIG welder is also capable of stick welding. Equipped with Power Factor Correction (PFC) Inverter<sup>®</sup> V205-T AC/DC provides almost 30% more output power with the same input current. The 115/230V auto-reconnect makes the V205-T AC/DC truly flexible and the rugged, portable, lightweight design is ideal for shop or field environments. It can be simply changed to a water cooled unit by adding the COOL ARC<sup>®</sup> 20 Water Cooler.

### Features

- Advanced inverter technology optimizes arc performance in a light-weight package.
- Suitable for 115-230V (+15%-10%) single phase use smart switching.
- 30% more output current with the same input current allows welding up to 4.0 mm electrode with 16A input.
- Three modes of operation DC TIG, AC TIG or Stick.
- AC or DC output for a wide variety of material types and thicknesses.
- Adjustable AC frequency allows you to focus the arc for precise arc control.
- PFC gives low current consumption, energy saving, low current harmonics and reduction of the total CO<sub>2</sub> produced by the welding process.

#### Processes

- Stick
- Lift TIG / TIG HF
- TIG Pulse



#### Recommended Consumables

- **Steel**  
LNT 25, LNT 26, LNT Ni1, LNT 19
- **Stainless steel**  
LNT 304L, 316L, 309LSI

#### Unit Includes

- 2 m input cable
- Carrying strap
- Gas connection kit

#### Key Options

- **KIT-200A-25-3M** Cable Kit 200A – 25 mm<sup>2</sup> – 3 m
- **KIT-200A-35-5M** Cable Kit 200A – 35 mm<sup>2</sup> – 5 m
- **GRD-200A-35-xM** Ground cable 200A – 35 mm<sup>2</sup> – 5/10 m
- **K10529-26-x** TIG torch LTP 26 G – 180A – 4/8m
- **K10529-20-x** TIG torch LTP 20 W – 220A – 4/8m
- **K10529-18-x** TIG torch LTP 18 W – 320A – 4/8m
- **K10095-1-15M** Remote control – 15 m
- **K12031-1** Water cooler COOL ARC<sup>®</sup> 20
- **K10420-1** Coolant Acorox (2x5l)
- **W0200002** Undercarriage



### 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
Inverter <sup>®</sup> V205-T AC/DC	K1855-2	115/ 230V/1Ph	6-200	200A/28V/35% 170A/26.8V/100%	32/16	18	385 x 215 x 480	IP23C / H





# Invertec® V270-T & TP

## Designed and Engineered for Durability

The Invertec® V270-T/TP is manufactured in a lightweight but robust outer casing, making it portable and ideal for operation, even in the most hazardous environments. It features HF TIG ignition, Lift TIG ignition, 2 or 4 step, variable down slope and postflow control, a digital preset meter with a hold function and built-in Variable Pulse (for TP models). 2V models can be connected both to 115V AC and 230V AC supply. It can be simply changed to a water cooled unit by adding the COOL ARC® 20 Water Cooler.

### Features

- Excellent arc characteristics for a wide range of applications.
- Generator compatible, ideal for site use.
- HF and Lift TIG ignition.
- Fully functional user-friendly control panel for easy setup of welding parameters.
- HIGH speed PULSE to adjust the arc focus, reduce distortion and increase travel speed (TP models).
- Fan as needed (F.A.N.™) built-in reduces power and the intake of dust and fumes.



### Processes

- Stick
- Lift TIG / TIG HF
- TIG Pulse (V270-TP)



### Recommended Consumables

- **Steel**  
LNT 25, LNT 26, LNT Ni1, LNT 19
- **Stainless steel**  
LNT 304L, 316L, 309LSi

### Unit Includes

- 2 m input cable
- Carrying strap
- Gas connection kit

### Key Options

- **KIT-200A-25-3M** Cable Kit 200A  
– 25 mm<sup>2</sup> – 3 m
- **KIT-200A-35-5M** Cable Kit 200A  
– 35 mm<sup>2</sup> – 5 m
- **GRD-200A-35-xM** Ground cable 200A  
– 35 mm<sup>2</sup> – 5/10 m
- **K10529-26-x** TIG torch LTP 26 G  
– 180A – 4/8m
- **K10529-20-x** TIG torch LTP 20 W  
– 220A – 4/8m
- **K10529-18-x** TIG torch LTP 18 W  
– 320A – 4/8m
- **K10095-1-15M** Remote control – 15 m
- **K12031-1** Water cooler COOL ARC® 20
- **K10420-1** Coolant Acorox (2x5l)
- **W020002** Undercarriage



### INPUT



### OUTPUT



### 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
Invertec® V270-T	K12023-1	400V/3Ph	5-270	270A/30.8V/35% 200A/28V/100%	20	15.2	385 x 215 x 480	IP23S / H
Invertec® V270-TP	K12024-1							
Invertec® V270-TP-2V	K12024-3	230/400V/3Ph			35/20			



# Invertec® 170TX & TPX Invertec® 220TPX

## Professional TIG welders for tough conditions

The Invertec® 170TX, 170TPX and 220TPX TIG and Stick welders combine a rugged industrial construction with excellent arc characteristics. They are full function DC TIG inverters with excellent arc control and perfect Arc Start in any welding conditions. All the machines have been designed, not only as a TIG welder, but to also operate as a stick welder with a variety of popular stick electrodes. Their portable rugged design makes them ideal for both in shop or field use. The Invertec® 170TX is the base model with basic TIG and Stick functions. The Invertec® 170TPX has additional features including Pulse TIG, 10 memory locations, TIG Spot welding for improved TIG welding performances. The Invertec® 220TPX includes all the same features and advantages as the Invertec 170TPX model with the addition of Power Factor Correction (PFC) circuitry that allows TIG welding UP to 220A with 16A single phase input voltage. All the machines are designed to operate on engine driven generators.

### Features

- Advanced inverter technology for superior TIG performance.
- Full function user-friendly control panel layout with graph and a numeric display make it easy to set all welding parameters.
- Rugged construction: electrical safety (IP23), potted PC boards and optimum airflow reduce contamination to extend the equipment's life in the harshest environmental conditions.
- HF and Lift TIG ignition meeting all requirements.
- Perfect TIG HF starting with pre-settable stating mode.
- Complete TIG parameters setting: Pulse TIG with variable frequency that allows the welder to adjust the arc focus to suit the applications, 10 memory location for personalized welding setting, TIG Spot welding (170TPX, 220TPX).
- PFC (Power Factor Correction) advantages: 30% more output current with the same input current, suitable for 115-230V (+15%-10%) single phase, low current consumption, energy saving, low current harmonics and reduction of the total CO<sub>2</sub> produced by the welding process (220TPX).



### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output (TIG)	Fuse Size (A) (slow)	Weight (kg)	Dimensions HxWxD (mm)	Protection/Insulation Class
Invertec® 170TX	K12054-1	230V/1Ph	5-170	170A/16.8V/35% 130A/15.2V/100%	16	12	328 x 212 x 465	IP23 / H
Invertec® 170TPX	K12055-1							
Invertec® 220TPX	K12057-1	115/230V/1Ph	2-220	220A/18.8V/25% 150A/16V/100%	13			



### Processes

- Stick
- Lift TIG / TIG HF
- TIG Pulse (170TPX, 220TPX)

### Recommended Consumables

- **Steel**  
LNT 25, LNT 26, LNT Ni1, LNT 19
- **Stainless steel**  
LNT 304L, 316L, 309LSi

### Unit Includes

- 2 m input cable
- Gas connection kit

### Key Options

- **KIT-200A-25-3M** Cable Kit 200A – 25 mm<sup>2</sup> – 3 m
- **KIT-200A-35-5M** Cable Kit 200A – 35 mm<sup>2</sup> – 5 m
- **KIT-250A-35-5M** Cable Kit 250A – 35 mm<sup>2</sup> – 5 m
- **GRD-200A-35-xM** Ground cable 200A – 35 mm<sup>2</sup> – 5/10 m
- **K10529-17-x** TIG torch LTP 17 G – 140A – 4/8m
- **K10529-26-x** TIG torch LTP 26 G – 180A – 4/8m
- **K10529-20-x** TIG torch LTP 20 W – 220A – 4/8m
- **K870** Foot Amptrrol
- **K14147-1** Remote control – 15 m
- **K14148-1** Extension for remote control 15m





# Invertec® 300TPX

# Invertec® 400TPX

## Industrial TIG welders for tough conditions

The Invertec® 300 and 400TPX have been manufactured in a light-weight but robust outer casing, making them portable and ideal for operation even in the most hazardous environments. These machines feature HF TIG ignition, Lift TIG ignition, 2 or 4 step, variable down slope, post-flow control, digital pre-set meters with hold functions and built-in variable Pulse. Unique pre-settable starting mode allows excellent HF arc start in any welding conditions. Both machines are equipped with ten memory slots allowing for setting of personal welding parameters and procedures. TIG Spot welding mode completes the extensive list of TIG welding features. Both machines have been designed, not only as a TIG welder, but to also operate as a stick welder with a variety of popular stick electrodes including Cellulosic. They can be simply converted to a water-cooled unit by adding the COOLARC® 21 (300TPX) or COOLARC® 46 (400TPX) water-coolers. Robust, stable and well equipped carts are available for easy movement of the units.

### Features

- Advanced inverter technology for superior TIG performance.
- Full function user-friendly control panel layout with graph and a numeric display make it easy to set all welding parameters.
- Rugged construction: electrical safety (IP23), potted PC boards and optimum airflow reduce contamination to extend the equipment's life in the harshest environmental conditions.
- HF and Lift TIG ignition meeting all requirements.
- Perfect TIG HF starting with pre-settable starting mode.
- Complete TIG parameters setting: Pulse TIG with variable frequency that allows the welder to adjust the arc focus to suit the applications, 10 memory location for personalized welding setting, TIG Spot welding.
- Water coolers and Carts available



### 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
Invertec® 300TPX	K12060-1	400V/3Ph	5-300	300A/22V/40% 220A/18.8V/100%	16	22	349 x 247 x 502	IP23S / H
Invertec® 400TPX	K12043-1		5-400	400A/26V/35% 300A/22V/100%		37	455 x 301 x 632	

### Processes

- Stick
- Lift TIG / TIG HF
- TIG Pulse



### Recommended Consumables

- **Steel**  
LNT 25, LNT 26, LNT Ni1, LNT 19
- **Stainless steel**  
LNT 304L, 316L, 309LSi

### Unit Includes

- 2 m input cable
- Gas connection kit

### Key Options

- **KIT-250A-35-5M** Cable Kit 250A – 35 mm<sup>2</sup> – 5 m
- **KIT-300A-50-5M** Cable Kit 300A – 50 mm<sup>2</sup> – 5 m
- **KIT-400A-70-5M** Cable Kit 400A – 70 mm<sup>2</sup> – 5 m
- **GRD-300A-50-xM** Ground cable 300A – 50 mm<sup>2</sup> – 5/10 m
- **K10529-26-x** TIG torch LTP 26 G – 180A – 4/8m
- **K10529-20-x** TIG torch LTP 20 W – 220A – 4/8m
- **K10529-18-x** TIG torch LTP 18 W – 320A – 4/8m
- **K10095-1-15M** Remote control – 15 m
- **K14103-1** Water cooler COOL ARC® 21 (300TPX)
- **K14105-1** Water cooler COOL ARC® 46 (400TPX)
- **K10420-1** Coolant Acorox (2x5l)
- **K14114-1** Cart ST/TPX (300TPX)
- **K14129-1** Cart TPX (400TPX)
- **K14115-1** Tool box



# ASPECT® 300

## The TIG AC/DC new aspect!

ASPECT® 300 is an industrial AC/DC TIG welding machine designed and manufactured using the latest inverter digital technology. This machine has been designed and built to perform in the most hazardous environments at high outputs: 300A at 35% duty cycle both in TIG AC and TIG DC application. The controller provides all the features you would expect from industrial AC/DC TIG inverter welding machines combined with a user-friendly front panel layout, setting advanced TIG parameters has never been so simple!

The top class features like the 2A minimum current, the multiple AC mode selection (including four different wave shapes), the optimized TIG start with adjustable electrode type and HF polarity, makes the unit the right choice to suit any application. It can be simply changed to water-cooled by adding the COOL ARC® 46 Water Cooler. A robust, stable and well equipped cart is available for easy movement of the unit.

### Features

- Advanced inverter technology for superior TIG performance.
- Superb welding characteristics with TIG DC, TIG AC and Stick welding processes.
- Adjustable cleaning and penetration for perfect aluminium welding.
- Variable AC frequency (40-400Hz) for control of travel speed and penetration.
- Full function user-friendly control panel layout with graph and a numeric display make it easy to set all welding parameters.
- Rugged construction: electrical safety (IP23), potted PC boards and optimum airflow reduce contamination to extend the equipment's life in the harshest environmental conditions.
- PFC (Power Factor Correction) advantages: 30% more output current with the same input current, suitable for 230-400V (+15%-10%) three phase, low current consumption, energy saving, low current harmonics and reduction of the total CO<sub>2</sub> produced by the welding process.
- Water coolers and Carts available.



### 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
ASPECT® 300	K12058-1	230/400V/3Ph	2-300	300A/22V/35% 200A/18V/100%	32/20	43	455 x 301 x 632	IP23 / H

#### Processes

- Stick DC, Stick AC
- TIG DC, TIG AC
- Lift TIG, TIG HF
- TIG Pulse



#### Recommended Consumables

- **Steel**  
LNT 25, LNT 26, LNT Ni1, LNT 19
- **Stainless steel**  
LNT 304L, 316L, 309L
- **Aluminium**  
SuperGlaze®

#### Unit Includes

- 3 m input cable
- Gas connection kit

#### Key Options

- **KIT-300A-50-xM** Cable Kit 300A  
– 50 mm<sup>2</sup> – 5/10m
- **E/H-300A-50-xM** Electrode holder  
300A -50 mm<sup>2</sup> – 5/10m
- **GRD-300A-50-xM** Ground cable  
300A -50 mm<sup>2</sup> – 5/10 m
- **K10529-26-x** TIG torch LTP 26 G  
– 180A – 4/8m
- **K10529-18-x** TIG torch LTP 18 W  
– 320A – 4/8m
- **K10529-18SC-8** TIG torch LTP18 WSC  
– 400A – 8m
- **KP10516-11** Accessory kit LT17/18/26  
– 1,6-2,4 mm
- **KP10516-12** Accessory kit LT17/18/26  
– 2,4-3,2 mm
- **K870** Foot Amptrul
- **K14147-1** Remote control – 15 m
- **K14148-1** Extension for remote control 15 m
- **K14105-1** Water cooler COOL ARC® 46
- **K10420-1** Coolant Acorox (2x5 l)
- **K14129-1** Cart TPX



#### INPUT



#### OUTPUT





## ACCESSORY KITS

**Cable kits (ground/electrode)**  
with ground cable & electrode holder (clamp)  
Item n°:

- **KIT-140A-16-3M**  
(140A – 16 mm<sup>2</sup> – 3 m)
- **KIT-140A-25-5M**  
(140A – 25 mm<sup>2</sup> – 5 m)
- **KIT-200A-25-3M**  
(200A – 25 mm<sup>2</sup> – 3 m)
- **KIT-200A-35-5M**  
(200A – 35 mm<sup>2</sup> – 5 m)
- **KIT-250A-35-5M**  
(250A – 35 mm<sup>2</sup> – 3 m)
- **KIT-300A-50-5M**  
(300A – 50 mm<sup>2</sup> – 5 m)
- **KIT-400A-70-5M**  
(400A – 70 mm<sup>2</sup> – 5 m)



**Cable kits (ground)**  
Item n°:

- **GRD-200A-35-5M**  
(200A – 35 mm<sup>2</sup> – 5 m)
- **GRD-200A-35-10M**  
(200A – 35 mm<sup>2</sup> – 10 m)
- **GRD-300A-50-5M**  
(300A – 50 mm<sup>2</sup> – 5 m)
- **GRD-300A-50-10M**  
(300A – 50 mm<sup>2</sup> – 10 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)
- **GRD-600A-95-10M**  
(600A – 95 mm<sup>2</sup> – 10 m)



## REMOTE CONTROLS

- 1 potentiometer,  
6-pins, 15 m  
Item n°:  
**K10095-1-15M**



- Foot Amptrol,  
6-pins, 7.6 m  
Item n°:  
**K870**



## TIG TORCHES

The Linc Torch Premium (LTP) range is enhancing our current range of TIG torches, providing even better performance for the welder's comfort. Designed to meet the challenges of a variety of applications in maintenance, fabrication or construction sites, the new torches are offered in both air-cooled and water-cooled version.

### Air cooled

#### LT 17 G / LTP 17 G / 140A DC-100A AC @ 35%

##### STANDARD RANGE

LT 17 G 4M	Ergo	K10513-17-4
LT 17 G 8M	Ergo	K10513-17-8
LT 17 G 4M	Lever	K10513-17-4f

##### PREMIUM RANGE

LTP 17 G 4M	Ergo	K10529-17-4
LTP 17 G 8M	Ergo	K10529-17-8
LTP 17 G 4M	Valve Conn. 10-25	K10529-17-4VS
LTP 17 G 4M	Valve Conn. 35-50	K10529-17-4V
LTP 17 G 8M	Valve Conn. 35-50	K10529-17-8V
LTP 17 G 8M	Lever	K10529-17-8F



#### LT 26 G / LTP 26 G / 180A DC-130A AC @ 35%

##### STANDARD RANGE

LT 26 G 4M	Ergo	K10513-26-4
LT 26 G 8M	Ergo	K10513-26-8
LT 26 G 4M	Lever	K10513-26-4F

##### PREMIUM RANGE

LTP 26 G 4M	Ergo	K10529-26-4
LTP 26 G 8M	Ergo	K10529-26-8
LTP 26 G 12M	Ergo	K10529-26-12
LTP 26 G 4M	Ergo Flex	K10529-26-4X
LTP 26 G 8M	Ergo Flex	K10529-26-8X
LTP 26 G 4M	Valve Conn. 35-50	K10529-26-4V
LTP 26 G 8M	Valve Conn. 35-50	K10529-26-8V
LTP 26 G 8M	Lever	K10529-26-8F



### Water cooled

#### LT 20 W / LTP 20 W / 220A DC-165A AC @ 100%

##### STANDARD RANGE

LT 20 W 4M	Lever	K10513-20-4F
------------	-------	--------------

##### PREMIUM RANGE

LTP 20 W 4M	Ergo	K10529-20-4
LTP 20 W 8M	Ergo	K10529-20-8
LTP 20 W 8M	Lever	K10529-20-8F



#### LT 18 W / LTP 18 W / 220A DC-165A AC @ 100%

##### STANDARD RANGE

LTP 18 W 4M	Ergo	K10513-18-4
LTP 18 W 8M	Ergo	K10513-18-8
LTP 18 W 8M	Lever	K10513-18-8F

##### PREMIUM RANGE

LTP 18 W 4M	Ergo	K10529-18-4
LTP 18 W 8M	Ergo	K10529-18-8
LTP 18 W 4M	Ergo Flex	K10529-18-4X
LTP 18 W 8M	Ergo Flex	K10529-18-8X
LTP 18 W 8M	Lever	K10529-18-8F



#### LTP 18 W SC / 400A DC-280A AC @ 100%

##### PREMIUM RANGE

LT 18 W SC 4M	Ergo	K10529-18-8
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## UNDERCARRIAGES

- Undercarriage with gas cylinder platform, delivered as a kit, for use with 400TPX, Aspect 300  
Item n°: **K14129-1**
- Undercarriage with gas cylinder platform delivered as a kit, for use with 300TPX  
Item n°: **K14114-1**
- 2-wheeled cart, delivered as a kit, for use with V205-TP and V270-TP  
Item n°: **W0200002**



## WATER COOLERS

### COOL ARC® 20

for use with V205/V270  
Item n°: **K12031-1**



### Coolant ACOROX

(2x5l)  
Item n°: **K10420-1**



### COOL ARC® 21

for use with 300TPX  
Item n°: **K14103-1**



### COOL ARC® 46

for use with 400TPX/ASPECT 300  
Item n°: **K14105-1**



**NEW!**

**LINC TORCH™ LTP PREMIUM**



QUALITY MAKES THE DIFFERENCE





## MIG & FLUX-CORED WELDERS

Recommended for industrial job shops and manufacturing applications

Optimized for CV processes

Designed for use with a variety of wire feeders



# MIG Flux-Cored Welders

**Handy MIG**  
Superbly simple, powerfully portable



**Weld Pak™ 2000**  
Smart, multi-process, compact



**Powertec® 161C, 191C, 231C, 271C**  
The Professional's Choice



**Powertec® 255C, 305C**  
Powerful compact, excellent economics



**Powertec® 305C, 355C, 425C PRO**  
Premium arc, synergic style



**Powertec® 305S, 365S, 425S, 505S**  
Powerful potential



**CV-425, CV-510**  
High Output. Reliable Workhorses!



MIG Compact	Mode		Output Range (A)	Voltage (V)	PROCESS		FEATURES			Warranty (years)
	Polarity				MIG	Flux Cored	nb steps	Drive rolls	WFS (m/min)	
Handy MIG	CV	DC	45-80	230	●	○		2	1-20	3
Weld Pak™ 2000	CV	DC	20-180	230	●	●		2	1-20	2
Powertec® 161C	CV	DC	30-150	230	●	●	7	2	1-17	3
Powertec® 191C	CV	DC	30-180	230	●	●	8	2	1-20	3
Powertec® 231C	CV	DC	30-220	230	●	○	12	2	1-20	3
Powertec® 271C	CV	DC	30-255	230	●	○	12	2	1-20	3
Powertec® 255C	CV	DC	25-250	230/400-400	●	○	20	4	1-20	3
Powertec® 305C	CV	DC	30-300		●	○	30	2/4	1-20	3
Powertec® 305C PRO	CV	DC	30-280	230/400	●	○	30	4	1-20	3
Powertec® 355C PRO	CV	DC	30-350		●	○	30	4	1-20	3
Powertec® 425C PRO	CV	DC	30-420		●	●	30	4	1-20	3

MIG Packages	Mode		Output Range (A)	Voltage (V)	PROCESS		FEATURES			WIRE FEEDERS	
	Polarity				MIG	Flux Cored	nb steps	Drive rolls	WFS (m/min)		
Powertec® 305S	CV	DC	30-300	230/400-220/380/440	●	○	20	-	-	3	LF22-M, LF24-M, LF24-M PRO
Powertec® 365S	CV	DC	30-350		●	○	30	-	-	3	
Powertec® 425S	CV	DC	30-420		●	●	30	-	-	3	
Powertec® 505S	CV	DC	30-500		●	●	30	-	-	3	
CV425	CV	DC	10-420		●	●	-	-	-	3	LF33S, LF33
CV510	CV	DC	10-500	●	●	-	-	-	3		

KEY: ○ Excellent ● Good ▲ Possible

# Handy MIG

Superbly simple, powerfully portable

Compact, portable and lightweight wire feed welders plug into a 230V, 16 amps outlet. These machines are ideally suited to the light maintenance and repair such as the small garage works and jobs around the farm. Four voltage settings and continuous wire feed speed adjustment allow to weld light gauge mild steel. Easy to get started, since practically everything you will need to weld is included – gun and cable assembly, work cable & clamp, spool of solid wire, contact tips and hand shield with filter plate and lens. Also a chipping hammer/brush, so you can use your Handy MIG to weld straight away.



## Features

- Suitable for the welding of most thin sheet steel applications.
- Connects to 230V, 16 amps outlet.
- Safe operation – no electrical current until trigger is pressed.
- Compact, portable, lightweight and easy to use.
- Ideal for general light maintenance projects.
- Continuous wire feed speed adjustment and four selectable voltage steps for precise control.
- Fan-cooled or expectancy.
- Supplied ready to weld.

### 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
Handy MIG	K14000-1	230V/1Ph	45-80	70A/175V@20%	16	18	345 x 220 x 455	IP21 / H

### Processes

- MIG
- Flux-cored (innershield)



### Recommended Consumables

- **Steel**  
Ultramag®, Supramig®, Supramig Ultra®
- **Flux-cored**  
Innershield® NR211-MP

### Unit Includes

- Input cable
- MIG gun
- Drive rolls
- 0.5 kg solid wire
- Kit of welding accessories

### Key Options

- B10241-1 MIG gun



# Weld Pak™ 2000

Smart, multi-process compact

The Weld PAK™ 2000 is a completed multi-process DC voltage arc welding machine. It is ideally suited to weld thin sheet metal and for repair and maintenance works. It's perfect tool for light Steel applications. This compact can be easy movable. You need only plug the welder into 230 V outlets. It is recommended for MIG/MAG applications (including Stainless Steel), for Innershield gasless flux cored arc welding and also for Stick application with Rutile and Basic electrodes. The Weld PAK™ 2000 is designed to feed wire from 0,6 mm to 1,1 mm (steel, stainless steel and flux-cored) on B300 and S200 spools. A quality welding performance depends on a quality wire drive system. For this reason we have equipped the Weld PAK with professional feeder with large rolls. The Weld PAK™ 2000 has been designed to meet Lincoln standards of performance and reliability. As a result we confidently provide a Lincoln two-year warranty on parts and labour.



## Features

- Superior arc behaviour with premium starting performance and arc stability
- User friendly User Interface with step-less controlled output current
- Easy to change polarity
- Professional wire feeding system

### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Fuse Size (A) (slow)	Weight (kg)	Dimensions HxWxD (mm)	Protection Class
Weld Pak™ 2000	K14134-1	230V/1Ph	20-180	180A/23V@20%	25	275	600 x 280 x 800	IP23

### Processes

- MIG
- Flux-cored (Innershield)
- Stick



### Recommended Consumables

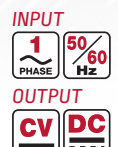
- **Steel**  
Ultramag®, Pantafix®, Omnia®46, Baso® G
- **Flux-cored**  
Innershield® NR211-MP

### Unit Includes

- 3 m input cable
- Work lead, 4m
- Gas hose, 2m
- MIG gun, 3m

### Key Options

- K10429-15-xM MIG gun LGS 150 G – 150A – 3/4/5 m
- K10429-25-xM MIG gun LGS 250 G – 200A – 3/4/5 m
- E/H-200A-25-3M Electrode holder, 200A – 25 mm<sup>2</sup> – 3 m
- KP14016-x Drive roll kit range (2R)
- K10158-1 Readi-reel mounting stand (15 kg)





# Powertec® 161C, 191C, 231C, 271C

## The Professional's Choice

The Powertec® 161C, 191C, 231C and 271C are all designed to provide a range of machines with a variety of welding outputs suitable for operating from a single-phase mains supply. The Powertec® range begins with the 161C, which is ideal for the welding of thin sheet metal applications, repair and maintenance works. This machine has excellent arc and starting characteristics, allowing you to complete your welding project efficiently, quickly and professionally with minimal spatter levels.

It is a perfect tool for small workshop, car body repair or for the farm. The Powertec® 191C and 231C have the power required for light construction applications, yet still offer the flexibility to weld thin material like the Powertec® 161C. The Powertec® 271C truly is the multi-purpose model in this range, ideal for both welding thin material and also light to medium construction work.

### Features

- Superior arc behaviour with premium starting performance and arc stability.
- Excellent control, with Burnback control, Spot welding function, 2/4 stroke feature (except PT161C) and additional voltage settings.
- Optional volt and ammeter (except PT161C).
- Easy to change polarity.
- Professional wire feeding system.
- Equipped with Euro connector and ground cable assembly.



#### Processes

- MIG
- Flux-cored

#### Recommended Consumables

- **Steel**  
Ultramag®, Supramig®, Supramig Ultra®
- **Flux-cored**  
Innershield® NR211-MP

#### Unit Includes

- 3 m input cable and 3 m ground cable

#### Key Options

- **K10429-15-xM** MIG gun LGS 150 G – 150A – 3/4/5 m
- **K10429-25-xM** MIG gun LGS 250 G – 200A – 3/4/5 m
- **K10413-25PHD-xM** MIG gun LGP 250 G – 200A – 3/4/5 m
- **K10413-25FX-xM** MIG gun LG 250 G FX – 200A – 3/4/5 m
- **K10429-36-xM** MIG gun LGS 360 G – 300A – 3/4/5 m
- **K10413-36PHD-xM** MIG gun LGP 360 G – 300A – 3/4/5 m
- **KP14016-x** Drive roll kit range (2R)
- **K10158-1** Readi-reel mounting stand (15 kg)
- **K14044-1** Meter V/A kit (except PT161C)
- **K14048-1** CO<sub>2</sub> heater connection kit (except PT161C)



### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Fuse Size (A) (slow)	Weight (kg)	Dimensions HxVxD (mm)	Protection/Insulation Class
Powertec® 161C	K14040-2	230V/1Ph	30-150	150A/21.5V/20%	16	53	615 x 390 x 825	IP23 / H
Powertec® 191C	K14045-1		30-180	180A/23.0V/20%	20	70	765 x 427 x 850	
Powertec® 231C	K14046-1		30-220	220A/25.0V/20%	25	80		
Powertec® 271C	K14047-1		30-255	255A/26.8V/20%	32	83		

\* "- 2" include A/V meter installed



# Powertec® 255C, 305C

## Powerful compact, excellent economics

The design of the Powertec® 255C and 305C was driven by the need to provide our customers with a range of machines offering a variety of welding outputs. The range begins with the 255C, which is an ideal machine for welding of thin sheet metal applications. With excellent arc and starting characteristics this machine allows welding projects to be completed efficiently, quickly and professionally with minimal spatter levels. The Powertec® 255C is a more powerful version, still capable of welding thin material but with the extra power required for light fabrication work. The Powertec® 305C truly is a multi-purpose model, ideal for both thin sheet applications and light to medium fabrication work. The Powertec® 305C will operate in either Short Arc welding or Full Spray modes with a 1.0 mm wire.

### Features

- Products developed with a focus on applications.
- Excellent starting performance (stable and dynamic).
- Voltage selectors with multiple steps for precise adjustment.
- Excellent drive system with large diameter drive roll.
- Electronic feedback system on the wire drive will guarantee consistent wire feed speed.
- Equipped with large diameter wheels, push/pull bar and lifting eyes for full manoeuvrability.
- Optional Volt Ammeter kit and polarity change kit.



### 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
Powertec® 255C	K14055-1	400V/3Ph	25-250	250A/26.5V/35%	16	94	810 x 467 x 930	IP23 / H
	K14055-2	230/400V/3Ph			32/16			
Powertec® 305C	K14056-1 & -3	400V/3Ph	30-300	300A/29V/35% 225A/25.2V/60%	25	95	810 x 467 x 930	IP23 / H
	K14056-2 & -4	230/400V/3Ph			40/25			

### Processes

- MIG
- Flux-cored



### Recommended Consumables

- **Steel**  
Ultramag®, Supramig®, Supramig Ultra®
- **Flux-cored**  
Innershield® NR211-MP
- **Aluminium**  
SuperGlaze®

### Unit Includes

- Undercarriage
- 5 m-input cable
- Work clamp and cable assembly (3 m)
- Gas hose (2 m)
- Drive roll kit

### Key Options

- **K10429-25-xM** MIG gun LGS 250 G – 200A – 3/4/5 m
- **K10413-25PHD-xM** MIG gun LGP 250 G – 200A – 3/4/5 m
- **K10413-25FX-xM** MIG gun LG 250 G FX – 200A – 3/4/5 m
- **K10429-36-xM** MIG gun LGS 360 G – 300A – 3/4/5 m
- **K10413-36PHD-xM** MIG gun LGP 360 G – 300A – 3/4/5 m
- **KP14016-x** Drive roll kit range (2R)
- **KP14017-x** Drive roll kit range (4R)
- **K10158-1** Readi-reel mounting stand (15 kg)
- **K14077-1** Kit polarity change PT255C/305C
- **K14049-1** Meter kit
- **K14009-1** CO<sub>2</sub> heater connection kit

### INPUT



### OUTPUT





# Powertec® 305C PRO, 355C PRO Powertec® 425C PRO

## Premium arc, synergic style

The Powertec® PRO range of MIG welding machines is superior in all respects. All have excellent arc characteristics and very low spatter levels with argon mix or 100% CO<sub>2</sub> shielding gas. The extensive set of features on all Powertec® Pro's includes 2/4-step run-in, wire inch and gas purge. Two digital meters indicates clearly the welding voltage and amperage which when combined with the synergic control allows optimum and easy setting with controllability. Select the synergic control and voltage and the wire feed speed will then be adjusted automatically to suit. All machines come equipped with a rugged four-roll drive system with a powerful 90 watt motor. The machines also have a lower cylinder platform, allowing easy loading and unloading of the gas cylinder.

## Features

- Products developed with a focus on applications.
- Superb Arc behaviour with Argon Mix and 100% CO<sub>2</sub>.
- Excellent drive system (4 rolls) with large diameter drive roll and powerful motor.
- Electronic feedback system on the four-roll wire drive will guarantee consistent wire feed speed.
- Voltage selectors with multiple steps for precise adjustment.
- Synergic control to support easy control by the welder.
- Bright digital Volt and Ammeter.
- Completed with an extensive set of features.
- Large diameter wheels, push/pull bar and lifting eyes for full manoeuvrability.



## 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
Powertec® 305C PRO	K14057-1	230/400V/3Ph	30-280	280A/28V/40% 230A/25.5V/60%	32/20A	145	890 x 565 x 1060	IP23 / H
Powertec® 355C PRO	K14058-1		30-350	350A/31.5V/40% 285A/28.2V/60%	40/25A	147	890 x 690 x 1060	
Powertec® 425C PRO	K14059-1A		30-420	420A/35V/40% 345A/31.3V/60%	50/32A	162		

## Processes

- MIG
- Flux-cored



## Recommended Consumables

- **Steel**  
Ultramag®, Supramig®, Supramig Ultra®
- **Flux-cored**  
Innershield® NR211-MP, Outershield® MC710-H
- **Stainless steel**  
LNM 304L, 316L, 309LSi
- **Aluminium**  
SuperGlaze®

## Unit Includes

- Undercarriage
- 5m-input cable
- Work clamp and cable assembly (3m)
- Gas hose (2m)
- Drive roll kit

## Key Options

- **K10429-25-xM** MIG gun LGS 250 G – 200A – 3/4/5 m
- **K10413-25PHD-xM** MIG gun LGP 250 G – 200A – 3/4/5 m
- **K10413-25FX-xM** MIG gun LG 250 G FX – 200A – 3/4/5 m
- **K10429-36-xM** MIG gun LGS 360 G – 300A – 3/4/5 m
- **K10413-36PHD-xM** MIG gun LGP 360 G – 300A – 3/4/5 m
- **K10429-505-xM** MIG gun LGS 505 W – 450A – 3/4/5 m
- **K10413-55PHD-xM** MIG gun LGP 550 W – 500A – 3/4/5 m
- **KP14017-x** Drive roll kit range (4R)
- **K10158-1** Readi-reel mounting stand (15 kg)
- **K14071-1** DR system kit (grill)
- **K14009-1** CO<sub>2</sub> heater connection kit (except PT 305C)
- **K14037-1** Water cooler COOL ARC® 25
- **K10420-1** Coolant Acorox (2x5l) (PT425C only)

## INPUT



## OUTPUT



# Powertec® 305S, 365S, 425S, 505S

## Powerful potential

With the full range of Powertec® power sources and the LF22M & 24M (Pro) wire feeders, Lincoln is able to offer you unrivalled choice of step voltage MIG machines. With multiple output levels available across the power source range; 2 or 4 roll feeders with or without meters and a variety of interchangeable features, the choice is huge: there are 12 different combinations which give the Powertec® range unparalleled flexibility. Design of the LF22M, 24M and 24M Pro feeders focused on ruggedness, physical dimensions and ease of use. The result is an incredibly rugged casing with the primary controls on the exterior and secondary controls secure within the protective casing close to the wire drive.

### Features

- Products developed with a focus on applications.
- Superb Arc behaviour with Argon Mix and 100% CO<sub>2</sub>.
- Voltage selectors with multiple steps for precise adjustment.
- Two choke tabs to support superb Arc behaviour
- Fan as needed (F.A.N.™).
- Synergic control to support easy control by the welder with LF24M Pro.
- Bright digital volt and ammeter with LF24M and LF24M Pro.
- Completed with an extensive set of features.
- Large diameter wheels, push/pull bar and lifting eyes.
- Easy to convert to water-cooled by simply adding the Coolarc 25 (except PT 305S).




### 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
Powertec® 305S	K14060-1	230/400V/3Ph	30-300	300A/29V@35% 230A/25.5V@60%	32/20	94	770 x 467 x 930	IP23 / H
Powertec® 365S	K14061-1A K14061-2A	230/400V/3Ph 220/380/440/3Ph	30-350	350A/31.5V@40% 285A/28.2V@60%	40/25	141	875 x 700 x 1035	
Powertec® 425S	K14062-1A K14062-2A	230/400V/3Ph 220/380/440/3Ph	30-420	420A/35V@40% 345A/31.5V@60%	50/32	151		
Powertec® 505S	K14063-1A K14063-2A	230/400V/3Ph 220/380/440/3Ph	30-500	500A/39V@40% 400A/34.5V@60%	63/40	157		

### Technical Specifications of Wire Feeders

Product	Item Number	Cooling	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
					Solid	Cored		
LF-22M	K14064-1	A	34-44V AC	1-20	0.8-1.6	1.0-1.6	15	440 x 275 x 636
LF-24M	K14065-1W	A/W					17	
LF-24M PRO	K14066-1W						17	



**Processes**

- MIG
- Flux-cored

**Recommended Consumables**

- **Steel**  
Ultramag®, Supramig®, Supramig Ultra®
- **Flux-cored**  
Innershield® NR211-MP, Outershield® MC710-H
- **Stainless steel**  
LNM 304L, 316L, 309LSi
- **Aluminium**  
SuperGlaze®

**Unit Includes**

- Undercarriage
- 5 m-input cable
- Work clamp and cable assembly (3m)

**Recommended Packages**

- LF22M or LF24M or LF24M pro wire feeder
- Powertec® power source on undercarriage, Input cable, Work clamp and cable assembly + COOL ARC® 25 for water cooled version
- 5 m-Interconnection cable, MIG gun and gas regulator

**Key Options**

- K10347-PG(W)-xM Interconnection cables
- K10429-25-xM MIG gun LGS 250 G – 200A – 3/4/5 m
- K10413-25PHD-xM MIG gun LGP 250 G – 200A – 3/4/5 m
- K10413-25FX-xM MIG gun LG 250 G FX – 200A – 3/4/5 m
- K10429-36-xM MIG gun LGS 360 G – 300A – 3/4/5 m
- K10413-36PHD-xM MIG gun LGP 360 G – 300A – 3/4/5 m
- K10429-505-xM MIG gun LGS 505 W – 450A – 3/4/5 m
- K10413-55PHD-xM MIG gun LGP 550 W – 500A – 3/4/5 m
- K10158-1 Readi-reel mounting stand (15 kg)
- K14071-2 DR system kit (grill)
- K14009-1 CO<sub>2</sub> heater connection kit
- K14037-1 Water cooler COOL ARC® 25
- K10420-1 Coolant Acorox (2x5l)

**INPUT** **OUTPUT**

3 PHASE

50/60 Hz

CV DC





# CV-425 & CV-510

## High Output. Reliable Workhorses!

The CV-425 and CV-510 are industrial power sources designed for heavy duty applications. Both power sources meet IP23 protection which means that they will operate in the most arduous environmental conditions experienced, in such places as shipyards or offshore yards. The machines have been designed so that all the sensitive components are enclosed in a compartment free from dust and separated from the air-flow needed to cool the machine. The PCB within the machines is completely encapsulated which will provide maximum protection from the elements. Both the CV-425 and CV-510 power sources are tested at +40°C and rated at 60% duty cycle. As a result of this rigorous testing and specifications, it allows these machines to operate and weld in any environment at a 100% duty cycle. Like all Lincoln machines the CV-425 and 510 are designed with the application in mind.

### Features

- Potted and encapsulated printed circuit board controls in separate dust free compartments.
- Different feeders for construction and shipyards, all with meters, with or without synergy or memory; just select the one of your choice.
- Superb arc behaviour with argon mix and 100% CO<sub>2</sub>.
- Electronic feedback system on the wire drive will guarantee consistent wire feed speed.
- Equipped with large diameter wheels, push/pull bar and lifting eyes for full manoeuvrability.
- Completed with an extensive set of features.



### Processes

- MIG
- Flux-cored



### Recommended Consumables

- **Steel**  
Ultramag<sup>®</sup>, Supramig<sup>®</sup>, Supramig Ultra<sup>®</sup>
- **Flux-cored**  
Innershield<sup>®</sup> NR211-MP, Outershield<sup>®</sup> MC710-H
- **Stainless steel**  
LNM 304L, 316L, 309LSi
- **Aluminium**  
SuperGlaze<sup>®</sup>

### Unit Includes

- Undercarriage
- 5 m-input cable
- Work clamp and cable assembly (3 m)

### Recommended Packages

- LF-33 wire feeder 4-roll, 1.0-1.2 mm drive roll
- CV425 or CV510 power source on undercarriage, Input cable, Work clamp and cable assembly + COOL ARC<sup>®</sup> 25 for water cooled version
- 5 m-Interconnection cable, MIG gun and gas regulator

### Key Options

- **K10429-36-xM** MIG gun LGS 360 G – 300A – 3/4/5 m
- **K10413-36PHD-xM** MIG gun LGP 360 G – 300A – 3/4/5 m
- **K10429-505-xM** MIG gun LGS 505 W – 450A – 3/4/5 m
- **K10413-55PHD-xM** MIG gun LGP 550 W – 500A – 3/4/5 m
- **K10158-1** Readi-reel mounting stand (15 kg)
- **K14037-1** Water cooler COOL ARC<sup>®</sup> 25
- **K10420-1** Coolant Acorox (2x5l)
- **K14009-1** CO<sub>2</sub> heater connection kit
- **K14071-2** DR system kit (grill)
- **K14082-1** Kit A/V meter

### 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
CV-425	K14080-1A	230/400V/3Ph	10-420	420A/35V/60%	63/32A	152	880 x 696 x 1020	IP23 / H
	K14080-2A	220/380/440V/3Ph		325A/30.3V/100%	63/32/32A			
CV-510	K14081-1A	230/400V/3Ph	10-500	500A/39V/60%	63/40A	160	880 x 696 x 1020	IP23 / H
	K14081-2A	220/380/440V/3Ph		325A/33.3V/100%	63/32/32A			

### Technical Specifications of Wire Feeders

Product	Item Number	Cooling	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
					Solid	Cored		
LF-33	K14030-1W	A/W	34-44V AC	1-20	0.8-1.6	1.0-1.6	17	440 x 275 x 636
LF-33S	K14051-1						12	350 x 195 x 530

### INPUT



### OUTPUT



### ACCESSORY KITS

**Interconnection cables**

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

Item n°:

- K10347-PG-xM (air cooled)
- K10347-PGW-xM (water cooled)



**Kits**

Item n°:

- K14049-1A/V meter kit Powertec C
- K14073-1A/V meter kit LF22m
- K14071-1 Kit grill Powertec C PRO
- K14071-2 Kit grill Powertec S
- K14077-1 Kit Polarity change Powertec 255C & 305C

### WATER COOLERS

**COOL ARC® 25**

Item n°:  
K14037-1

**Coolant ACOROX**

(2x5l)  
Item n°:  
K10420-1



### 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**

**STANDARD GUNS**

- LGS 150G, 150A @ 60%  
K10429-15-xM 3 m, 4 m or 5 m
- LGS 250G, 200A @ 60%  
K10429-25-xM 3 m, 4 m or 5 m
- LGS 360G, 300A @ 60%  
K10429-36-xM 3 m, 4 m or 5 m

**PREMIUM GUNS**

- LGP 250G, 200A @ 60%  
K10413-25PHD-xM 3 m, 4 m or 5 m
- LG 250G FX, 200A @ 60%  
K10413-25FX-xM 3 m, 4 m or 5 m
- LGP 360G, 300A @ 60%  
K10413-36PHD-xM 3 m, 4 m or 5 m
- LGP 420G, 350A @ 60%  
K10413-42PHD-xM 3 m, 4 m or 5 m

**Water cooled**

**STANDARD GUNS**

- LGS 505W, 450A @ 100%  
K10429-505-xM 3 m, 4 m or 5 m

**PREMIUM GUNS**

- LGP 550W, 500A @ 100%  
K10413-55PHD-xM 3 m, 4 m or 5 m



### DRIVE ROLL KITS

**2 rolls**

- KP14016-0.8 0.6-0.8 mm - solid wire
- KP14016-1.0 0.8-1.0 mm - solid wire
- KP14016-1.2 1.0-1.2 mm - solid wire
- KP14016-1.1R 0.9-1.1 mm - cored wire
- KP14016-1.6R 1.2-1.6 mm - cored wire
- KP14016-1.2A 1.0-1.2 mm - aluminium wire

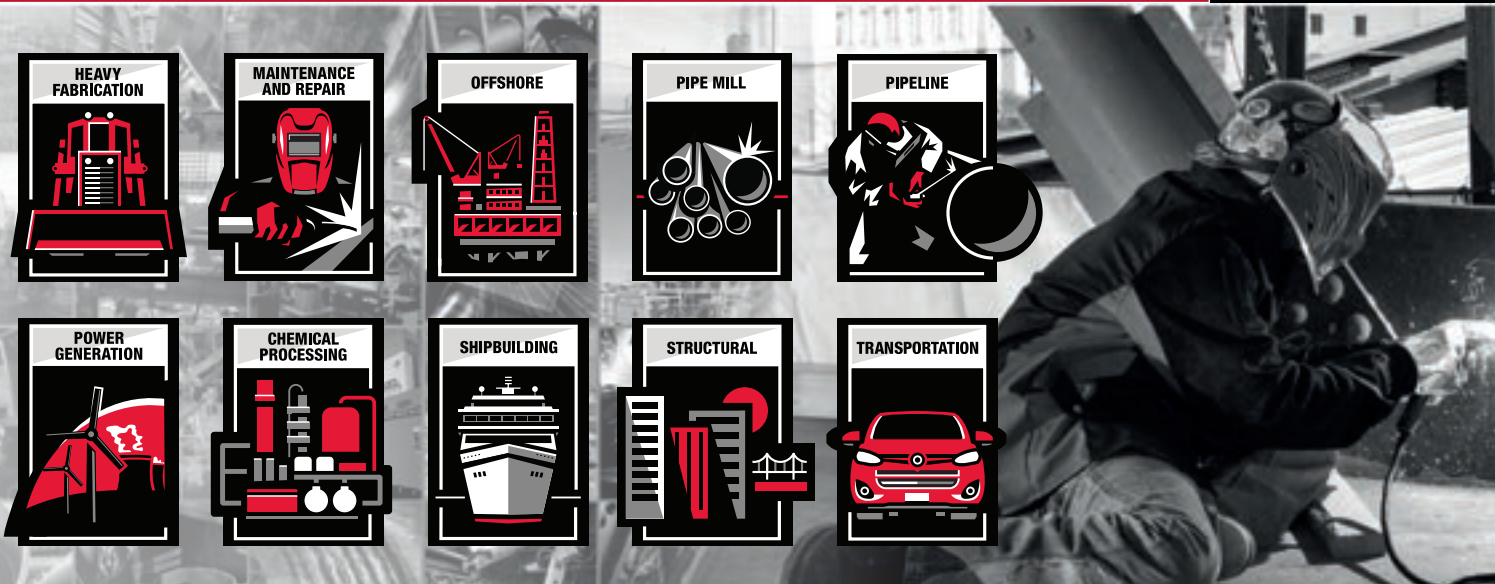
**4 rolls**

- KP14017-0.8 0.6-0.8 mm - solid wire
- KP14017-1.0 0.8-1.0 mm - solid wire
- KP14017-1.2 1.0-1.2 mm - solid wire
- KP14017-1.6 1.2-1.6 mm - solid wire
- KP14017-1.1R 0.9-1.1 mm - cored wire
- KP14017-1.6R 1.2-1.6 mm - cored wire
- KP14017-2.4R 1.6-2.4 mm - cored wire
- KP14017-1.2A 1.0-1.2 mm - aluminium wire
- KP14017-1.6A 1.2-1.6 mm - aluminium wire



# Delivering on our commitments of welding expertise across a board range of industry applications

From the most technologically demanding to the most basic application, we help our customer find the best, most economical and productive solutions to meet the productivity and quality requirements specific to their individual needs.





# MULTI-PROCESS WELDERS

For Heavy Manufacturing and Fabrication

One Machine for Stick, TIG, Wire Welding and Arc Gouging

Ruggedly Built for Tough Environments



# Multi-Process Welders

**Speedtec® 180C, Speedtec® 200C, Speedtec® 215C**  
Many tasks, many locations



Compact Inverter

**Speedtec® 405S, Speedtec® 505S**  
High output, reliable industrial machine



Inverter Power Source

**Invertec® V350 PRO**  
Design smart, Built tough



**Flextec® 650 CE**  
Flexible technology<sup>SM</sup>



**Idealarc® DC-400**  
Simple DC multi-process welding



Conventional Power Source

**Arc Tracker™**  
Portable, Powerful. Weld Performance Monitoring



Advanced Device

	Mode	Polarity	Output Range (Amps)	Voltage (V)	MIG	Flux-cored	Stick	DC TIG	Submerged Arc	Gouging	Warranty (years)
<b>Compact Inverter</b>	OUTPUT			INPUT	PROCESS					FEATURES	
Speedtec® 180C	CV	DC	20-200	230	●	●	●	▲			2
Speedtec® 200C	CV	DC	20-200	115/230	●	●	●	●			2
Speedtec® 215C	CC/CV	DC	20-200	115/230	●	●	●	●			3

<b>Inverter Power Source</b>											
Speedtec® 405S	CC/CV	DC	20-400	400	●	●	●	●		○	3
Speedtec® 505S	CC/CV	DC	20-500	400	●	●	●	●		○	3
Invertec® V350 PRO	CC/CV	DC	5-425	200/220/380/415	●	●	●	●		○	3
Flextec® 650 CE	CC/CV	DC	10-815	380/460/575	●	●	●	●	●	●	3

<b>Conventional Power Source</b>											
Idealarc® DC-400	CC/CV	DC	60-500	230/400	●	●	●	●	●	●	3

KEY: ○ Excellent ● Good ▲ Possible



# Speedtec® 180C Speedtec® 200C Speedtec® 215C **NEW!**

## Many tasks, many locations

The SPEEDTEC® 180C, 200C & 215C are small but powerful single phase inverter based, multi-process machines. Lincoln Electric has constructed a fully professional machine packed with features, into a small light-weight compact housing maximising portability. These features make our range extremely versatile; they can be used for many different applications and can be easily moved around production facilities or transported to any location effortlessly. These units can be powered from the mains supply or are also suitable for use with motor generators. The SPEEDTEC® 180C, 200C & 215C units have been equipped with Power Factor Correction (PFC), a feature which supports high output welding current from a single phase 230V1Ph 50/60Hz supply allowing it to be used with a long (up to max 100m) primary extension cable. With electronically designed welding waveforms Lincoln Electric offers these multi-process units for MIG, Stick or TIG modes; it's just a question of choosing the right model. The SPEEDTEC® 180C, 200C & 215C are ready to tackle many different welding applications. The welding performance gives excellent results for Steel, Stainless Steel and Aluminium (using 200mm dia. spools). The SPEEDTEC® 180C, 200C & 215C machines work perfectly with mixed gas and 100% CO<sub>2</sub> also with self-shielding wires (Innershield).

## Features

- Compact and Robust, Innovative, Portable and Lightweight, Anyplace, Anywhere.
- Multiple Tasks: Speedtec® 180C: CV MIG, FCW, Stick \ Speedtec® 200C/215C: CV MIG, CV Synergic, FCAW, Stick, Lift TIG.
- Power Factor Correction (PFC). More Welding Power, consumes 30% less energy than conventional equipment, Generator Compatible.
- User Friendly Operation: Icon control panel (Speedtec® 180C) Icon control colour TFT Interface screen (Speedtec® 200C/215C).
- Superior Arc Performance. CV MIG: Infinitely Variable Control of voltage, Wire Feed Speed and Inductance, Stick: Hot Start and Arc Force Control, TIG: Lift TIG avoids Tungsten contamination.
- Smart housing: 15kg spool capability, helpful shelves, 48% lower weight, compared to conventional MIG equipment (Speedtec® 215C).

**Processes**

- Stick
- Flux-Cored
- Lift TIG [200C/215C]
- MIG

**Recommended Consumables**


- **Steel**  
Ultramag®
- **Flux-cored**  
Innershield® NR® 211-MP
- **Aluminium**  
SuperGlaze®

**Unit Includes**

- Input cable
- Ground cable (3 m)
- Gas hose (2 m)
- Drive roll (0.8-1.0 mm)

**Key Options**

- **KP14016-x** Drive roll kit
- **K10429-15-xM** MIG gun LGS 150 G - 150A - 3/4/5 m
- **K10429-25-xM** MIG gun LGS 250 G - 200A - 3/4/5 m
- **K10529-17-x** TIG torch LTP 17 G - 140A - 4/8 m
- **K14114-1** Cart ST/TPX (180C/200C)
- **K14115-1** Tool box for Cart ST/TPX (180C/200C)
- **E/H-200A-25-3M** Electrode holder, 200A - 25 mm<sup>2</sup> - 3 m
- **KIT-200A-25-3M** Cable Kit 200A - 25 mm<sup>2</sup> - 3 m
- **K10158-1** Spool adapter for 15kg B300 [215C]
- **R-1019-125-1/08R** Spool adapter for 5kg [215C]




180C  
200C

215C



**INPUT** **OUTPUT**

1 PHASE 50/60 Hz CV CC CV DC

180C 200C 215C

### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output (GMAW)	Fuse Size (A) (Slow)	Weight (kg)	Dimensions HxWxD (mm)	Protection/Insulation Class
Speedtec® 180C	K14098-1	230V/1Ph	20-200	200A/24V/25%	16	17.3	396 x 246 x 527	IP23
Speedtec® 200C	K14099-1	115/230V/1Ph						
Speedtec® 215C	K14146-1					42.0	780 x 400 x 750	



# Speedtec® 405S Speedtec® 505S

## High output, reliable industrial machine

The Speedtec® range is the solution for Industrial Multi-process applications. With modular and compact design this welding set is easy to move around site. Transport is trouble free thanks to the lower weight of this new design. With the latest high frequency inverter technology, the arc is precisely controlled, many times faster than conventional analogue power sources. The electrical characteristics of the welding power can be changed by software in real time updates. A wide range of synergic programs are available as standard allowing simple yet precise control of welding parameters for the best results every time. The Speedtec® machines utilise the very latest power source technology for efficiency and lower energy consumption. Their advanced Inverter technology will save both time as well as energy. Driven by Lincoln Electric's Green Initiative, we aim to reduce the costs to you as well as the environment. These welding sets are available as 400A rated at 80% or 500A rated at 60% duty cycle (at 40°C). With the PF46 wire feed unit the welding set can support the MIG processes with synergic programs for Steel, Stainless Steel, Aluminium and Flux cored wires. Lift TIG and Stick functions are available as standard.

### Features

- Premium welding behaviour on CV MIG & Stick welding.
- Variable inductance control.
- Synergic capability.
- Job control with limits secured by a password (PF46).
- Continuous control of wire feed Speed and voltage.
- Remote control on the gun (PF46 & optional for PF44).
- Pre-setting (PF40 excl.) & Multi procedure (PF46).



### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Fuse Type rG or Circuit Breaker Type Z	Weight (kg)	Dimensions HxWxD (mm)	Protection Class
Speedtec® 405S	K14117-1	400V/3Ph	20-400A	400A/34V/80%	32A	50	535x300x635	IP23
Speedtec® 505S	K14116-1		20-500A	500A/39V/60%	32A			

### 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	



### Processes

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

### Recommended Consumables

- **Steel**  
Ultramag®, Supramig®, Supramig Ultra®
- **Flux-cored**  
Innershield® NR211-MP, Outershield® MC710-H
- **Stainless steel**  
LNM 304L, 316L, 309LSi
- **Aluminium**  
SuperGlaze®

### Basic Unit Includes

- Primary cable 5m
- Ground cable with clamp 3m

### Recommended Packages Include

- PF4X wire feeder
- Speedtec® power source
- COOL ARC® 46 for water cooled version
- Cart
- 5 m-Interconnection cable, MIG gun and gas regulator

### Key Options

- K10349-PG(W)-xM Interconnection cables
- K10429-36-xM MIG gun LGS 360 G – 300A – 3/4/5 m
- K10413-36PHD-xM MIG gun LGP 360 G – 300A – 3/4/5 m
- K10413-42PHD-xM MIG gun LGP 420 G – 350A – 3/4/5 m
- K10429-505-xM MIG gun LGS 505 W – 450A – 3/4/5 m
- K10413-55PHD-xM MIG gun LGP 550 W – 500A – 3/4/5 m
- K14096-1 Cart Speedtec
- K14141-1 Cart Dual
- K14105-1 Water cooler COOL ARC® 46
- K14020-1 Coolant Acorox (2x5l)
- K14130-1 LACI (Lincoln Arlink Communication Interface)
- K14121-1 User Interface U2
- K14122-1 User Interface U4
- K14123-1 User Interface U6
- K14124-1 Pendant box (12-pins)
- K14125-1 Kit 12-pin socket (F)
- K14131-1 Arlink-T Flex
- K14132-1 Adapter 5-pin(M)/12-pin(F)
- K14135-1 Arlink-T-Power
- K14120-1 Kit 6-pin socket (F)
- Gas flow regulator





# Invertec® V350-PRO

Design smart, Built tough

The multi-process Invertec® V350 PRO is an efficient, lightweight and portable choice for training, fabrication or construction applications. Smart operation allows it to handle any stick, TIG and MIG applications. This CE model has full Amphenol connections and a remote control. Its plug-and-play intelligence allows it to automatically adjust to your wire feeder instantly.

## Features

- Excellent welding behaviour on CV MIG and Stick Welding.
- Continuous control choke.
- Tough durable case with roll bars and skid
- Bright, large digital meters.
- Control panel is simple in design and easy to operate.
- Its plug-and-play intelligence allows it to automatically adjust to your wire feeder instantly.



- Digital display for Wire feed speed and Voltage.
- Adjustable Pre and Post flow.
- Perfect feeding.

### 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
V350PRO	K1728-12	200/220/380/400/415/440V/3Ph	5-425	350A/34V/60%-3Ph 300A/32V/100%-3Ph 320A/33V/60%-1Ph 275A/31V/100%-1Ph	63A	375	373 x 317 x 706	IP23 / S

## Inverter Power Source

### Processes

- MIG, Flux-cored
- Innershield
- Stick
- Gouging
- TIG



### Recommended Packages Include

- LF-33 or LN-25 Pro wire feeder
- Invertec® V350-PRO Power Source,
- 3 m-input cable
- 5 m-Interconnection cable, MIG gun and gas regulator

### Recommended wire feeders

- LF-33 or LN-25 pro

### Key Options

- K10347-PG-xM Interconnection cables
- K10429-36-xM MIG gun LGS 360 G - 300A - 3/4/5 m
- K10413-36PHD-xM MIG gun LGP360 G - 300A - 3/4/5 m
- K10413-42PHD-xM MIG gun LGP420 G - 350A - 3/4/5 m
- GRD-400A-70-xM Ground cable 400A - 70 mm<sup>2</sup> - 10/15 m
- K10262-3 Cart
- K10158-1 Readi-reel mounting stand (15kg)



## Conventional Power Source

# Idealarc® DC-400

Simple DC multi-process welding

This heavy duty, industrial, three-phase, multi-process power source scores big in MIG, flux-cored, submerged arc, stick and DC TIG welding. It's a great choice for arc gouging, too. Flexibility doesn't mean that it's complicated – the DC-400 is easy to set-up and use. Changeover between processes is as simple as turning the multi-process switch. On-board ammeter and voltmeter make monitoring of key welding parameters easy. Inductance and arc force controls allow the operator to efficiently refine the arc for the job in hand.

## Features

- Standard Volt and Ammeter.
- Solid state circuitry for long life and repetitive welding applications.
- Arc control adjustment changes pinch effect of the arc to control spatter, fluidity and bead shape in the MIG/ Flux-Cored mode.
- Mode switch for selecting desired output characteristics.
- Outstanding welding performance with a single range full output control potentiometer.
- Low profile case allows stacking machines up to three high to conserve floor space.



shown with multi-process switch option

### 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
Idealarc® DC-400	K1309-17	230/400V/3Ph	60-500	500A/40V/50% 450A/38V/60% 400A/36V/100%	77/45	215	782 x 566 x 840	IP23 / F

### Processes

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



### Recommended Wire Feeders

- LF-33
- LN-25 PRO, LN-23P
- NA-3, NA-5, NA-5R

### Key Options

- K10376 Adapter M14/Dinse[F]
- KIT-400A-70-5M Cable Kit 400A - 70 mm<sup>2</sup> - 5 m
- GRD-400A-70-xM Ground cable 400A - 70 mm<sup>2</sup> - 10/15 m
- FL060180600-L FLAIR 600 Gouging Torch
- K10124-1-15M Remote control - 15 m
- K804-1 Multi process switch
- K1520-2 Transformer kit 115V/42V
- K2187-2 Water cooler COOL ARC® 40
- K10420-1 Coolant Acorox (2x5l)
- K841 Cart



# Flextec® 650 CE

## Flexible technology<sup>SM</sup>

This multi-process welder delivers respectively up to 815A of welding power for a variety of applications, including construction and fabrication. It features an IP23 rating for outdoor operation and storage and the latest inverter technology will save you real money on the utility costs associated with your welding operations.

### Features

- Flexible multi-process capability – including stick, Touch Start TIG® [DC], MIG, flux-cored welding and carbon arc gouging with up to a 9.5mm and 12.7 mm carbon.
- CV submerged arc welding with all advantages and saves of the inverter technology is possible with Flextec 650 CE.
- The Future is Now<sup>SM</sup> – you no longer have to pay a premium price to gain the advantages of inverter technology over conventional welders. Faster arc response, low power consumption and enhanced portability.
- Bright digital amp and volt meters – easy to monitor, even in sunlight and presettable for precise procedure control.
- Compact, durable case – Tough IP23 enclosure rating ensures the Flextec™ 650 CE will withstand extreme field environments.
- Selectable Hot Start – turn it off for thin material or flip it on to get the extra starting amperage you need for thick, rusty or dirty material.
- Variable arc control – in stick mode, vary the arc force to obtain the “soft” or “crisp” arc you want as conditions require. In CV modes, vary the pinch or inductance to control spatter, fluidity and bead appearance.
- Desert Duty® rated – welding outputs are rated for extreme temperature operation up to 55°C.



### 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
Flextec® 650 CE	K3278-1	380/460/575/3Ph	10-815A	750A/44V/60% 650A/44V/100%	57/47/38	74.8	554 x 409 x 584	IP23S / H



#### Processes

- MIG
- Flux-cored
- Stick
- DC TIG
- Arc Gouging
- SAW Welding

#### Recommended Wire Feeders

- LN-25 PRO, LN-25 PRO Dual Power
- Active 8™
- LT-7
- NA-3, NA-5

#### Key Options

- K10376 Adapter M14/Dinse[F]
- K10238-10-5M Input cable – 4x10 mm – 5 m
- K10347-PG-xM Interconnection cables (for LF Feeders only)
- K10095-1-15M Remote control – 15 m
- K126-1/2 Innershield guns 350A – 62° – 1.6 mm – 3/4.6 m
- KP1697-x Drive roll kit range





# Arc Tracker™

## Portable, Powerful. Weld Performance Monitoring

The ARC TRACKER™ is a high-performance, portable product designed to accurately measure the True Energy delivered into a weld from any welding machine (DC process only). The ARC TRACKER™ will accurately measure the welding parameters (arc voltage, arc current and weld time) and provide a real-time calculation of the True Energy into the weld. While welding, the True Energy [in joules (J)] for the weld will be accurately displayed on the user interface.



### Features

- Advanced digital controls sample the welding parameters at extremely high speeds.
- Compatible with any DC welding process power source and wire feeder.
- Connect to any DC welding circuit, attach voltage sense leads and begin monitoring weld performance immediately.
- The Arc Tracker™ auto-senses any input voltage between 120 – 230 volts AC.
- Communicates weld data status to your network via standard Ethernet.
- Easily calibrated for use in factory quality systems.
- Arc Tracker™ software tools are available at [powerwavesoftware.com](http://powerwavesoftware.com), including:
  - Power Wave® Manager
  - Production Monitoring™
  - CheckPoint™.

### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Rated Output	Current Draw	Weight (kg)	Dimensions HxWxD (mm)
Arc Tracker™	K3019-1	120-230/1Ph	1000A/44VDC/100%	0.8A @ 120VAC	9	305 x 220 x 380



### Processes

- DC Arc Welding Circuits Only (10-1000 A at 100% Duty Cycle)
- Any DC Polarity Welding Process
- Any Welding Equipment

### Process Limitations

- Cannot be used with AC arc welding circuits.
- 1000A, 120V max.

### Key Options

- K10376 Adapter M14/Dinse(F)
- K10377 Adapter M14/Dinse(M)
- KP10559-1 Main cable C13 fem/EEC male, 2.5 m

### INPUT



### OUTPUT



# OUR CUSTOMERS TOLD US...



## CHALLENGING PROJECTS

CHECK OUR WEBSITE FOR APPLICATION STORIES

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

## ACCESSORY KITS

### Cable kits (ground / electrode)

with ground cable & electrode holder (clamp)  
Item n°:

For Speedtec 180C/200C

- **KIT-200A-25-3M**  
(200A - 25 mm<sup>2</sup> - 3 m)



For DC400

- **KIT-400A-70-5M**  
(400A - 70 mm<sup>2</sup> - 5 m)

### Cable kits (ground)

For V350-PRO & DC400  
Item n°:

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



For Speedtec 180C & 200C

- **K14010-1**

### Interconnection cables

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

Item n°:

For V350-PRO

- **K10347-PG-xM** (air cooled)
- **K10347-PGW-xM** (water cooled)



For Speedtec 405S & 505S

- **K10349-PG-xM** (air cooled)
- **K10349-PGW-xM** (water cooled)

## WATER COOLERS

### COOL ARC® 46

For Speedtec 405S & 505S

Item n°:  
**K14105-1**



### Coolant ACOROX

(2x5 l)

Item n°:  
**K10420-1**



## REMOTE CONTROLS

1 potentiometer, 6-pins, 15 m

Item n°: **K10095-1-15M**

Extension cable

Item n°: **K10398**



## 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

#### STANDARD GUNS

- LGS 150G, 150A @ 60%  
**K10429-15-xM** 3 m, 4 m or 5 m
- LGS 250G, 200A @ 60%  
**K10429-25-xM** 3 m, 4 m or 5 m
- LGS 360G, 300A @ 60%  
**K10429-36-xM** 3 m, 4 m or 5 m



#### PREMIUM GUNS

- LGP 250G, 200A @ 60%  
**K10413-25PHD-xM** 3 m, 4 m or 5 m
- LG 250 G FLEX NECK, 200A @ 60%  
**K10413-25FX-xM** 3 m, 4 m or 5 m
- LGP 360G, 300A @ 60%  
**K10413-36PHD-xM** 3 m, 4 m or 5 m
- LGP 420G, 350A @ 60%  
**K10413-42PHD-xM** 3 m, 4 m or 5 m



### Water cooled

#### STANDARD GUNS

- LGS 505W, 450A @ 100%  
**K10429-505-xM** 3 m, 4 m or 5 m



#### PREMIUM GUNS

- LGP 550W, 500A @ 100%  
**K10413-55PHD-xM** 3 m, 4 m or 5 m

## DRIVE ROLL KITS

### 2 rolls

For Speedtec 180C/200C

- **KP14016-0.8**  
0.6-0.8 mm - solid wire
- **KP14016-1.0**  
0.8-1.0 mm - solid wire
- **KP14016-1.2**  
1.0-1.2 mm - solid wire
- **KP14016-1.1R**  
0.9-1.1 mm - cored wire
- **KP14016-1.6R**  
1.2-1.6 mm - cored wire
- **KP14016-1.2A**  
1.0-1.2 mm - aluminium wire







# 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**  
Pulsed perfection, Modular flexibility



Advanced Module

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



**Power Wave® Advanced Module**  
Add STT, 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>														
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

	Mode	Polarity	Output Range (Amps)	Voltage (V)	Stick	AC/DC, Pulse, HF	MIG	MIG STT	MIG AC Pulse	Flux-cored	Gouging	Waveform Control technology®	ArcLink® Digital communications	Warranty (years)
<b>Advanced Module</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 - Pulse Speedtec® 505SP - Pulse

## High output, reliable industrial machine

The Speedtec® range is the solution for Industrial Multi-process applications. With modular and compact design this welding set is easy to move around site. Transport is trouble free thanks to the lower weight of this new design. With the latest high frequency inverter technology, the arc is precisely controlled, many times faster than conventional analogue power sources. The electrical characteristics of the welding power can be changed by software in real time updates. A wide range of synergic programs are available as standard allowing simple yet precise control of welding parameters for the best results every time. The Speedtec® machines utilise the very latest power source technology for efficiency and lower energy consumption. Their advanced Inverter technology will save both time as well as energy. Driven by Lincoln Electric's Green Initiative, we aim to reduce the costs to you as well as the environment. These welding sets are available as 400A rated at 80% or 500A rated at 50% duty cycle (at 40°C). With the PF46 wire feed unit the welding set can support the MIG processes with synergic programs for Steel, Stainless Steel, Aluminium and Flux cored wires. Lift TIG and Stick functions are available as standard.

### Features

- Pulsed MIG process-great for low spatter, low heat input and out-of-position applications-makes virtually any operator a better welder!
- Premium welding behaviour on CV MIG & Stick welding.
- Variable inductance control.
- Synergic capability.
- Job control with limits secured by a password (PF46).
- Continuous control of wire feed speed and voltage.
- Remote control on the gun (PF46 & optional for PF44).
- Pre-setting (PF40 excl.) & Multi procedure (PF46).



### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Fuse Type rG or Circuit Breaker Type Z	Weight (kg)	Dimensions HxWxD (mm)	Protection Class
Speedtec® 405SP (Pulse)	K14117-2	400V/3Ph	20-400A	400A/34V/80%	32A	50	535 x 300 x 635	IP23
Speedtec® 505SP (Pulse)	K14116-2		20-500A	500A/39V/50%	32A			

### 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	



### Processes

- Pulsed MIG
- MIG
- Flux-Cored
- Stick
- Lift TIG
- Gouging

### Recommended Consumables

- **Steel**  
Ultramag®, Supramig®, Supramig Ultra®
- **Flux-cored**  
Innershield® NR211-MP, Outershield® MC710-H
- **Stainless steel**  
LNM 304L, 316L, 309LSi
- **Aluminium**  
SuperGlaze®

### Basic Unit Includes

- Primary cable 5 m
- Ground cable with clamp 3 m

### Recommended Wire Feeders

- PF40, PF42, PF44, PF46

### Recommended packages include

- PF4X wire feeder
- Speedtec® power source
- COOL ARC® 46 for water cooled version
- Cart
- 5 m-Interconnection cable, MIG gun and gas regulator

### Key Options

- K10349-PG(W)-xM Interconnection cables
- K10429-36-xM MIG gun LGS 360 G – 300A – 3/4/5 m
- K10413-36PHD-xM MIG gun LGP 360 G – 300A – 3/4/5 m
- K10413-42PHD-xM MIG gun LGP 420 G – 350A – 3/4/5 m
- K10429-505-xM MIG gun LGS 505 W – 450A – 3/4/5 m
- K10413-55PHD-xM MIG gun LGP 550 W – 500A – 3/4/5 m
- K14096-1 Cart Speedtec
- K14141-1 Cart Dual
- K14105-1 Water cooler COOL ARC® 46
- K10420-1 Coolant Acorox (2x5l)
- K14130-1 LACI (Lincoln Arlink Communication Interface)
- K14121-1 User Interface U2
- K14122-1 User Interface U4
- K14123-1 User Interface U6
- K14124-1 Pendant box (12-pins)
- K14125-1 Kit 12-pin socket (F)
- K14131-1 Arlink-T Flex
- K14132-1 Adapter 5-pin(M)/12-pin(F)
- K14135-1 Arlink-T-Power
- K14120-1 Kit 6-pin socket (F)



### INPUT



### OUTPUT



# 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.



### 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 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
- K10429-15-xM MIG gun LGS 150 G – 150A – 3/4/5 m
- K10429-25-xM MIG gun LGS 250 G – 200A – 3/4/5 m
- K10413-25PHD-xM MIG gun LGP 250 G – 200A – 3/4/5 m
- K10413-25FX-xM MIG gun LG 250 G FX – 200A – 3/4/5 m
- K10429-36-xM MIG gun LGS 360 G – 300A – 3/4/5 m
- K10413-36PHD-xM MIG gun LGP 360 G – 300A – 3/4/5 m
- K14094-1 Remote control – 15 m
- K10158-1 Readi-reel mounting stand (15 kg)



### Inverter Power Source

# 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.



### 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> – 10/15 m
- K10429-36-xM MIG gun LGS 360 G – 300A – 3/4/5 m
- K10413-36PHD-xM MIG gun LGP 360 G – 300A – 3/4/5 m
- K10413-42PHD-xM MIG gun LGP 420 G – 350A – 3/4/5 m
- K10429-505-xM MIG gun LGS 505 W – 450A – 3/4/5 m
- K10413-55PHD-xM MIG gun LGP 550 W – 500A – 3/4/5 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



### 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



# Power Wave® S350 CE Power Wave® S500 CE

## Pulsed perfection, Modular flexibility

The Power Wave S350 and S500 are part of a new modular concept from Lincoln Electric; designed to offer a multitude of different set-up configurations, these machines can be tailored easily yet precisely to your welding application. The new platforms all communicate via Arlink allowing seamless connection with all of Lincoln's digital Feeders from the PF4X to PF84. All Power Waves® 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](http://powerwavesoftware.com) contains the latest version of software including weld modes.

### 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 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® 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	

### 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	



#### 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
- 5m-Interconnection cable, MIG gun and gas regulator

#### Key Options

- GRD-400A-70-xM Ground cable 400A - 70 mm<sup>2</sup> - 10/15 m
- K10349-PG(W)-xM Interconnection cables
- K10429-36-xM MIG gun LGS 360 G - 300A - 3/4/5 m
- K10413-36PHD-xM MIG gun LGP 360 G - 300A - 3/4/5 m
- K10413-42PHD-xM MIG gun LGP 420 G - 350A - 3/4/5 m
- K10429-505-xM MIG gun LGS 505 W - 450A - 3/4/5 m
- K10413-55PHD-xM MIG gun LGP 550 W - 500A - 3/4/5 m
- K2921-1 STT Module
- K14050-1 Water cooler COOL ARC® 50
- K10420-1 Coolant Acorox (2x5l)
- K14085-1 Cart
- K2444-3 CE Filter (PW S700)
- K3004-1 Autodrive 19
- K3171-1 Autodrive 19 Tandem
- K2827-2 DeviceNet Kit (S350,S500)
- K3001-1 Optional kit (UI, solenoid kit, 12-pin board)
- K14121-1 User Interface U2
- K14122-1 User Interface U4
- K14123-1 User Interface U6
- K14124-1 Pendant box (12-pins)
- K14125-1 Kit 12-pin socket (F)
- K14131-1 Arlink-T Flex
- K14132-1 Adapter 5-pin(M)/12-pin(F)



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



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

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

Power Wave® STT® Module adds 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. Power Wave® Advanced Module adds AC TIG and MIG process capability to any compatible Power Wave® S-Series power source to gain outstanding performance for Aluminium welding. Advanced Module allows STT® process as well.

### Features

- Exceptional Arc Control.
- UltiArc® – 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.



### Processes for Power Wave® STT® Module

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

### Key Options Advanced Module

- K3980-1 CE KIT-1
- K14144-1 CE KIT-2 TIG



### 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		

### Accessories

## ACCESSORY KITS

### Cable kits (ground)

For Power Wave  
Item n°:

- 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)



## UNDERCARRIAGES

• Undercarriage with gas cylinder platform, delivered as a kit, for use Speedtec 405/505S & SP  
Item n°: K14096-1



• Undercarriage with gas cylinder platform, delivered as a kit, for use with PW C300  
Item n°: K14087-1



• Undercarriage with gas cylinder platform, delivered as a kit, for use with PW S350/500  
Item n°: K14085-1



## 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

#### STANDARD GUNS

- LGS 150G, 150A @ 60%  
K10429-15-xM 3 m, 4 m or 5 m
- LGS 250G, 200A @ 60%  
K10429-25-xM 3 m, 4 m or 5 m
- LGS 360G, 300A @ 60%  
K10429-36-xM 3 m, 4 m or 5 m

#### PREMIUM GUNS

- LGP 250G, 200A @ 60%  
K10413-25PHD-xM 3 m, 4 m or 5 m
- LG 250G FX, 200A @ 60%  
K10413-25FX-xM 3 m, 4 m or 5 m
- LGP 360G, 300A @ 60%  
K10413-36PHD-xM 3 m, 4 m or 5 m
- LGP 420G, 350A @ 60%  
K10413-42PHD-xM 3 m, 4 m or 5 m

### Water cooled

#### STANDARD GUNS

- LGS 505W, 450A @ 100%  
K10429-505-xM 3 m, 4 m or 5 m

#### PREMIUM GUNS

- LGP 550W, 500A @ 100%  
K10413-55PHD-xM 3 m, 4 m or 5 m



## WATER COOLERS

### COOL ARC® 50

For PW C300 / S350 / S500  
Item n°: K14050-1

### COOL ARC® 46

For Speedtec 405SP & 505SP  
For V350-PRO & DC400  
Item n°: K14105-1



### COOLANT ACOROX

[2x5l]  
Item n°: K10420-1



## 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
- 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



## 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.



## 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.





# POWER WAVE® SOFTWARE SOLUTIONS

Power Wave® Manager - CheckPoint™ - WeldScore™

- [PowerWaveSoftware.com](http://PowerWaveSoftware.com)

# Power Wave® Software Solutions

Access to monitoring the welding processes. Anytime. Anywhere.



## Power Wave® Manager

### Control Your Process

- All the information and settings necessary for welding and procedure control.



## CheckPoint™

### Weld Data Anywhere

- Store your data in the cloud and access it on almost any device.



## WeldScore™

### Enhance Your Product Quality

- An integrated weld quality system that can assist quality assurance initiatives.



## www.PowerWaveSoftware.com

### Upgrade your Power Wave® Power Source Software for FREE

- Get access to the best welding solutions in the industry.

## Power Wave® Software allows you to:

- **Manage** – Monitor welding projects across the world.
- **Analyze** – review welding information in real time.
- **Control Cost** – track welds and wire consumption.
- **Process Control** – create unique names and set welding limits for each application.
- **Adjust** – change welding variable limits.

## Power Wave® Software:

- Increases productivity and product quality
- Reduces operational costs
- Costs you nothing!
- Is available in multiple languages



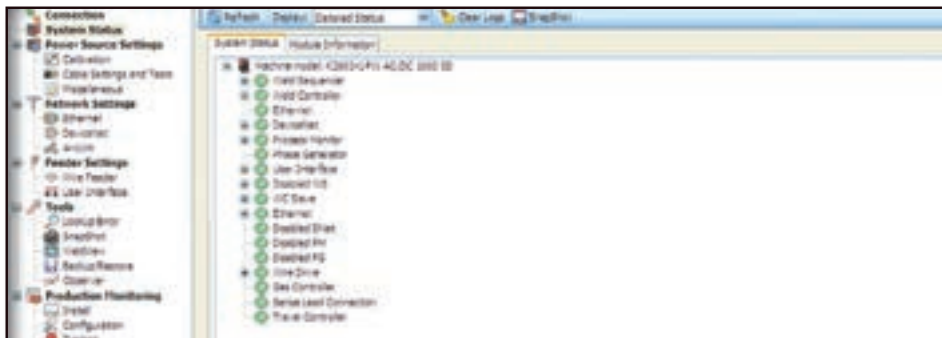
## Why use Power Wave® software solutions?

- **Monitor operations remotely** – View real time information from any networked welding station in any plant.
- **Name memory settings using text fields** – Customize memory names with Welding Procedure Specifications (WPS), Procedure Qualification Records (PQR), or other pertinent information.
- **Store settings to be used at a later time** – Backup and Restore tools can save and restore all welding settings from previous jobs.
- Install and configure CheckPoint™ right from the application.
- **Analyze welding operations offline** – Snapshot and WeldView™ functionalities allow quick and easy diagnostics of welding equipment.
- **Evaluate your power source** – Check the calibration, welding cable condition and other operational settings from your computer.



# Power Wave® Manager

## System Status



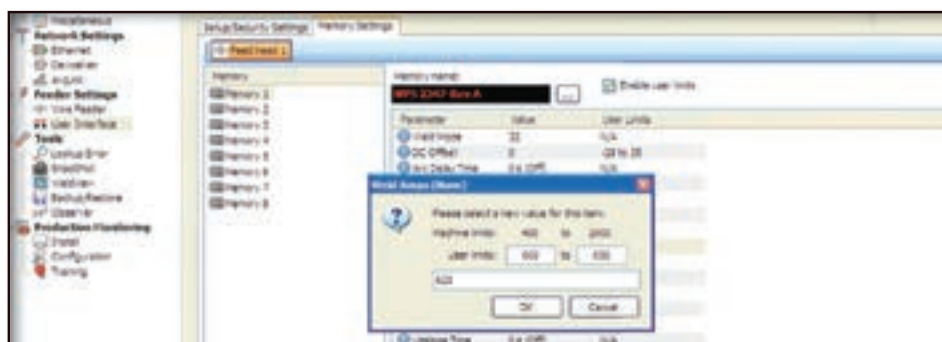
Check the status of every component in your welding system.

## Setup/Security Settings



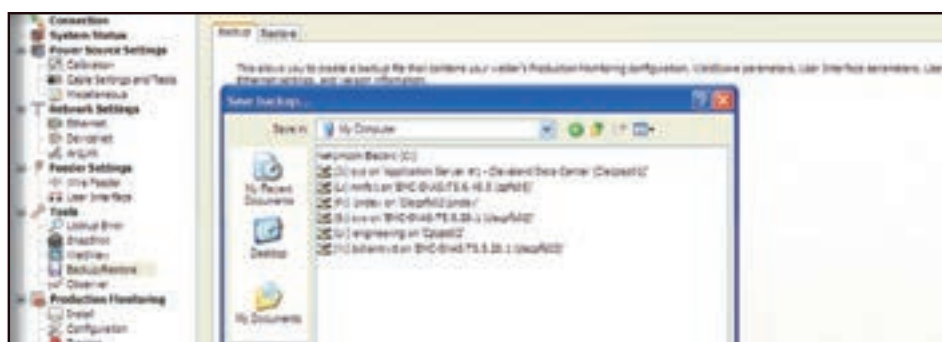
View and easily adjust the information associated with your welding operation.

## User Interface



Customize the name of your memory settings to match Welding Procedure Specification (WPS) or Procedure Qualification Record (PQR) number, or any other identifier, for easy retrieval at a later date.

## Backup/Restore



Backup – save all the settings associated with a specific configuration to your hard drive.

Restore – open any previously saved configuration and those settings are uploaded to your welder.

# CheckPoint™

## Store your weld data in the cloud and access it on almost any device.

- Traceability Scanning:**  
 Use the CheckPoint™ mobile app to scan barcodes for operator, consumable ID and part serial numbers. All scans are correlated with the weld data transmitted by the welder. Includes Bluetooth integration for industrial barcode scanners.
- Simple System Management**  
 Determine who is authorized to view the data, analysis, documents and manuals specific to each welder through desktop and mobile devices.

### Benefits

- No Software Hassles:**  
 No software to buy, install or upgrade with the standard edition. Upgrades are automatic and instantaneous.
- Easy to Activate:**  
 Minimal or no IT investment required; just connect the welder to the internet and you are ready to go.
- Easy to Use:**  
 Log in anywhere at any time to view welder status and much more.
- Mobile Device Compatibility:**  
 View on Smart phones, tablets, laptops or desktops with any browser.
- Graphical Interface:**  
 View data in an intuitive dashboard view that provides a Pulse™ on your welding operations at a glance.

- Cloud API:**  
 Using the industry standard protocol OData, CheckPoint™ delivers secure access to data by enterprise ERP systems, plant OEE systems, and maintenance applications.

- Security You Can Count On:**  
 Your data is protected with physical security, encryption, user authentication and more.
- Data Aggregation:**  
 With a global view of all of your welding equipment, you can benchmark your facilities.
- Exporting:**  
 Export data and reports in various formats for offline analysis.



Always On™ and Pulse™ are trademarks of I/Gear Online, LLC



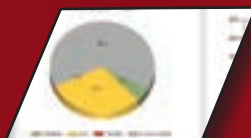
## Alerts

Receive email notifications based on equipment conditions and wire consumption.



## Production Monitoring

View live status of each welder and weld details.



## Traceability

Satisfy reporting requirements by capturing audit trail data.



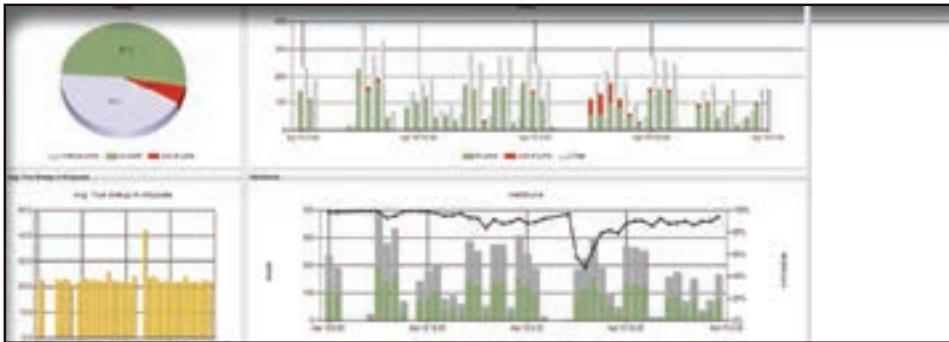


# Checkpoint™

## Production Dashboard



## Data Aggregation



## Weld Profiles



## Lincoln Electric Q-Cert™ Linkage



View data for each station or entire facility in a user friendly dashboard view. The Dashboard includes charts and graphs by day, week and other periods for a selection of user-determined criteria.

View a production summary of your entire welding operation. Roll up data from all welders or drill down to identify operational bottlenecks.

View key welder metrics such as WeldScore™, True Energy™, Wire Feed Speed, Current/Voltage and Wire Deposition organized by weld profile. Compare usage rates and time remaining for welding wire at each station.

Use the mobile app to scan a Lincoln Q1 or Q2 consumable lot number and the lot number is correlated to the weld data. This direct link between the weld and the consumable certificate provides an automatic, retrievable record for corporate quality systems.

# WeldScore™

Allows you to score each weld based on a trained sample of acceptable welds.

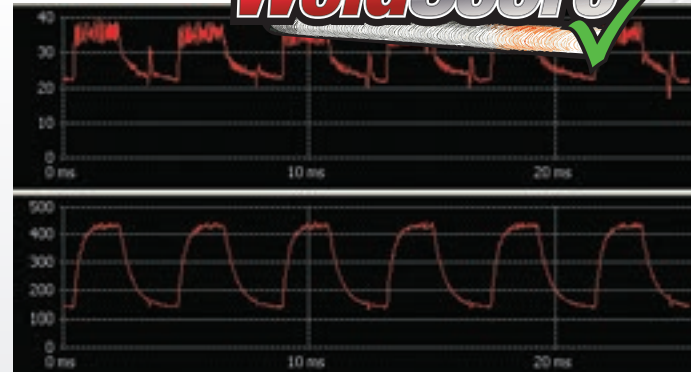


**Great for:**

- Expanding Quality Control Capabilities
- Trade School Monitoring, Grading and Final Examinations
- Critical Welds with Specific Quality Control Requirements
- Operator Testing and Certification Programs

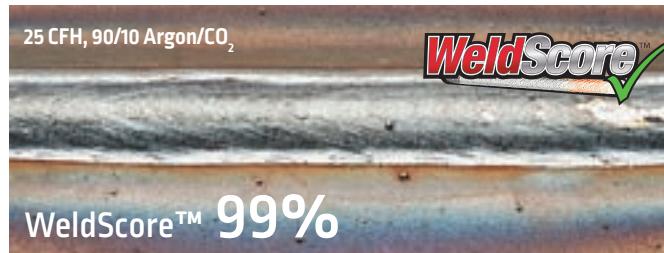
**Benefits**

- WeldScore™ is a unique patent pending data monitoring system based on 30 to 50 internal control variables.
- Fundamentally different from data monitoring systems that only use voltage and amperage feedback.
- Higher detection reliability achieved with data collection speed of 120 kHz and embedded knowledge of the welding control system.
- Allows you to score each weld based on your trained definition of the acceptable conditions.
- Multi-parameter statistical analysis specifically designed for consistent and reliable results.



## WeldScore™ Example

Acceptable Weld – Proper gas flow and coverage produces a good weld with no porosity.

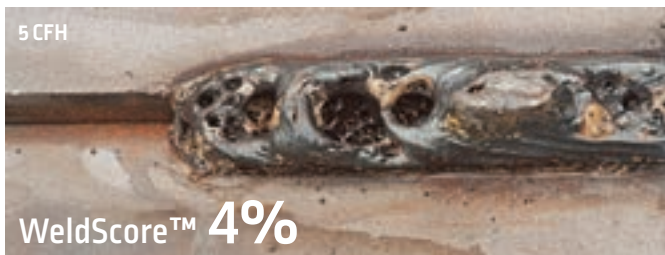


Closely matches “trained” sample weld, resulting in a 99% score.



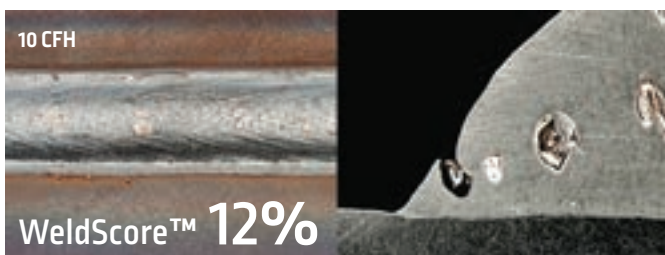
### Example-Low Gas Flow

Unacceptable Weld – Low gas flow results in obvious porosity.



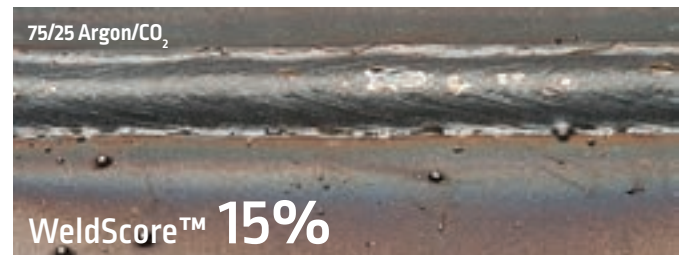
### Example-Low Gas Flow

Good Appearance / Internal Porosity – The weld appears good. However, a cross section of the weld reveals pin holes and hidden porosity under the surface due to low gas flow or gas coverage.



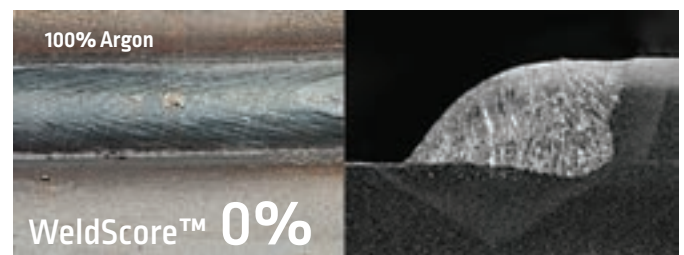
### Example-Shielding Gas Mix Change

Unacceptable Weld – Incorrect gas mix yields higher spatter levels.



### Example-Shielding Gas Mix Change

Good Appearance / Inadequate Penetration – The weld appearance is good with minimal spatter. However, a cross section of the weld reveals poor penetration due to an incorrect gas type.







# SEMIAUTOMATIC WIRE FEEDERS

Built Tough for Rough Environments  
Reliable Feeding and Durability  
Easy to Understand User Interface

# Semiautomatic Wire Feeders



Analog	FEATURES					Wire Feed Speed Range (m/min)	WIRE SIZE RANGE (mm)		FEATURES		Warranty (years)		
	MIG	Flux-cored	Stick	Lift TIG	Gouging		Solid	Cored	Drive Roll	Cooling			
Linc Feed 22M	●	●				1.0-20	0.8-1.6	1.0-1.6	2	A	3		
Linc Feed 24M	●	●									4	A/W	3
Linc Feed 24M PRO	●	●											3
Linc Feed 33S	●	●											3
Linc Feed 33	●	●			1.5-20								1.0-2.4

Digital	FEATURES					Wire Feed Speed Range (m/min)	WIRE SIZE RANGE (mm)		Drive Roll	Cooling	Warranty (years)		
	MIG	Flux-cored	Stick	Lift TIG	Gouging		Solid	Cored					
Power Feed® 22	●	●	●	●	●	1.0-22	0.8-2.4	0.9-2.4	4	A/W	3		
Power Feed® 26	●	●	●	●	●	1.0-20	0.8-1.6	1.0-1.6			3		
Power Feed® 40	●	●	●	●	●								3
Power Feed® 42	●	●	●	●	●								3
Power Feed® 44	●	●	●	●	●								3
Power Feed® 46	●	●	●	●	●			3					
Power Feed® 84	●	●	●	●	●	2.0-30	0.6-1.6 (high speed)	1.0-2.0 (high speed)			3		
Power Feed® 84 Dual	●	●	●	●	●		0.6-2.4 (low speed)	1.0-3.0 (low speed)			3		
Power Feed® 25M	●	●	●	●	●	1.3-20.3	0.6-1.6	0.8-2.4	2	3			

Field	FEATURES					Wire Feed Speed Range (m/min)	WIRE SIZE RANGE (mm)		Drive Roll	Cooling	Warranty (years)
	MIG	Flux-cored	Stick	Lift TIG	Gouging		Solid	Cored			
LN-23 P		●				0.76-6.7	-	1.7-2.0	2	A	3
LN-25 Pro	●	●				1.3-17.7	0.6-1.6	0.8-2.0			3

KEY: ○ Excellent ● Good ▲ Possible



# Linc Feed 22M, 24M & 24M PRO

## Small, robust, flexible & complete

The LF-22M, LF-24M and LF-24M Pro are portable wire feeders with stabilised wire feed speed. They include a rugged 2 or 4 roll wire feed unit, featuring cold inch, gas purge and built-in burn back facility. They can be mounted on the power source with a swivelling, wheeled carriage. Power source to wire feeder interconnecting cable assemblies are available in different lengths that allow working at distance from the power source.

### Features

- Continuous control of wire feed speed.
- Trigger mode selection for standard 2-steps or interlocking 4-steps.
- Gas purge to strike the arc with full shielding.
- Burnback preventing the wire sticking in the weld pool
- Cold inch control used to feed the wire into the torch.
- Stabilised wire drive system for constant control of wire feed speed.
- Delivered mounted on an undercarriage.
- Bright digital Volt and Ammeter (optional for LF22M).
- Run in to support perfect starting (except for LF22M) + for the LF24M PRO
  - Synergic control to support easy control by the welder
  - Gas preflow improves the protection of the bead before arc ignition.



### Technical Specifications

Product	Item Number	Drive Roll	Cooling	Rated Output	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
							Solid	Cored		
LF-22M	K14064-1	2	A	500A/60%	34-44V AC	1-20	0.8-1.6	1.0-1.6	15	440 x 275 x 636
LF-24M	K14065-1W	4	A/W						17	
LF-24M PRO	K14066-1W								17	

### Processes

- MIG
- Flux-Cored



### Recommended Power Sources

- Powertec® 305S / 365S / 425S / 505S

### Base Unit Includes

- Drive roll kit 1.0-1.2 mm
- Water connection kit (except LF22M)

### Key Options

- K10347-PG(W)-xM Interconnection cables
- K10429-15-xM MIG gun LGS 150 G – 150A – 3/4/5 m
- K10429-25-xM MIG gun LGS 250 G – 200A – 3/4/5 m
- K10413-25PHD-xM MIG gun LGP 250 G – 200A – 3/4/5 m
- K10429-36-xM MIG gun LGS 360 G – 300A – 3/4/5 m
- K10413-36PHD-xM MIG gun LGP 360 G – 300A – 3/4/5 m
- K10429-505-xM MIG gun LGS 505 W – 450A – 3/4/5 m
- K10413-55PHD-xM MIG gun LGP 550 W – 500A – 3/4/5 m
- K115-1/2 Innershield gun 450A – 82° – 3 mm – 3/4.6 m
- K126-1/2 Innershield gun 350A – 62° – 1.6 mm – 3/4.6 m
- KP14016-x Drive roll kit range [2R]
- KP14017-x Drive roll kit range [4R]
- K10158-1 Readi-reel mounting stand (15 kg)
- K14032-1 Heavy duty undercarriage
- K14073-1 Meter kit (LF22M)



INPUT



OUTPUT



# Linc Feed 33S & 33

## Small, robust, flexible & complete

The LF33S and 33 are wire feeders designed to withstand extreme environmental conditions. With these feeders, there is a focus on ruggedness construction, physical dimensions and ease of use. The result is an incredibly rugged, protective casing as standard complete with undercarriage for use under tough industrial conditions. The feeders are able to accept not only D300 (15 kg), but also small D200 (5 kg) wire spools, using solid or cored wire including Innershield. The entry level LF33 is equipped with 2/4-step, run-in, wire inch and gas purge. Two clear digital meters display the welding voltage and amperage.

### Features

- Small, rugged and easy to handle feeder with bright digital voltage and ammeter.
- All drives are equipped with an excellent wire drive system with four large drive rolls and powerful motor.
- Electronic feedback system on the wire drive will guarantee consistent wire feed speed.



### Technical Specifications of Wire Feeders

Product	Item Number	Drive Roll	Cooling	Rated Output	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
							Solid	Cored		
LF-33S	K14051-1	4	A/W	500A/60%	34-44V AC	1-20	0.8-1.6	1.0 – 2.4	12	350 x 195 x 530
LF-33	K14030-1W								17	

### Processes

- MIG
- Flux-Cored



### Recommended Power Sources

- STT® II / CV-425 / CV-510
- DC-400
- Invertec® V350 PRO
- Flextec® 450/650 (with limited output)
- Ranger® 305D / Vantage® 410/500

### Base Unit Includes

- Drive roll kit 1.0-1.2 mm,
- Water connection kit (LF 33)

### Key Options

- K10347-PG(W)-xM Interconnection cables
- K10370-PG-xM Interconnection cables
- K115-1/2 Innershield gun 450A – 82° – 3 mm – 3/4.6 m
- K126-1/2 Innershield gun 350A – 62° – 1.6 mm – 3/4.6 m
- KP14017-x Drive roll kit range [4R]
- K14034-1 Remote control (LF33)
- K10158-1 Readi-reel mounting stand (15 kg)
- K14032-1 Heavy duty undercarriage
- MIG guns: same as LF 22M, LF 24M and LF 24M Pro



**NEW!**

Digital

# Power Feed<sup>®</sup> 22, 26

## Portable construction digital wire feeders

Power Feed<sup>®</sup> 22 and Power Feed<sup>®</sup> 26 are new semiautomatic portable construction and digital wire feeders which support all multi-process and advanced digital [ArcLink<sup>®</sup>] Lincoln Power Sources. These are ideal for field construction and fabrication, shipbuilding and pipeline applications. A Polycarbonate flame resistant case ensures that the Power Feed<sup>®</sup> 22 & Power Feed<sup>®</sup> 26 has a lightweight and compact design, allowing them to be carried to remote or difficult to reach welding applications.

Power Feed<sup>®</sup> 22 is equipped with bright digital meters (visible pre-setted and actual values), trim function, mode selector and main starting/ending functions. It has 8 programs with quick access: 4 fixed as a welding process (GMAW, FCAW-GS, SMAW, GTAW) plus 4 which can be changed and assigned to one of four user memory.

Top class Power Feed<sup>®</sup> 26 utilizes TFT colour display with intuitive icon language and variety of special functions. Enables connection of push-pull gun allows you great performance on aluminium. Power Feed<sup>®</sup> 26 combines all functions with USB connection, dual procedure, memory and limits.

### Features

- Standard dual procedure allows operator to set different voltage and wire feed speeds and switch between the two.
- Tough Plastic Case: Polycarbonate flame resistant case ensures a lightweight and compact design, allowing them to be carried to remote or difficult to reach welding applications.
- Top class wire drive system: A new four-roll driven wire feeding system is easily accessible ensuring increased efficiency and providing reliability in feeding various types of wires especially with aluminium wires.
- Hardened and Construction Ready: Ideal for use for general fabrication, in shipyards, on-site or with long interconnection cables.
- User Interface: LED's with bright digital meters for PF22 and TFT color with innovative icon language for easy operation for PF-26.
- Hot/Soft start Crater Run and all standard features (PF-26).
- Internal Lighting: High intensity LEDs illuminate the wire drive.
- Fully encapsulated case protects feeders' components as well as the welding wire from external contaminants.

#### Processes

- Pulsed MIG
- MIG
- MIG-STT
- Flux-Cored
- Stick
- TIG
- Gouging



#### Recommended Power Sources

- Power Wave<sup>®</sup> S350, S500
- Speedtec<sup>®</sup> 405S, 405SP, 505S, 505SP

#### Base Unit Includes

- Drive rolls 1.0-1.2 mm Steel
- User Interface
- Flowmeter
- Chain

#### Key Options

- K10095-1-15M Remote control
- K14126-1 Remote Control RC-42 (PF-22)
- K14091-1 Remote Control MIG 7m (PF-26)
- K14121-1 User Interface U2
- K14123-1 User Interface U6
- K14124-1 Case of remote control
- E/H-400A-70-xM Electrode holder, 400A – 70 mm<sup>2</sup> – 5/10 m
- K2909-1 6-pin/12-pin adapter
- K14132-1 5-pin/12-pin adapter
- K14042-1 Adapter for spool type S200
- K363P Adapter for spool type Readi-Reel<sup>®</sup>
- K10349-PG(W)-xM Interconnection cables
- KP10519-8 Adapter TIG EURO
- K10513-26-4 TIG Torch LT 26 G
- K10413-x-x MIG Torches
- FL060180600-L FLAIR 600 Gouging torch
- K10343 Innershield<sup>®</sup> gun adaptor
- K115-1/2 Innershield gun 450A – 82° – 3 mm – 3/4.6 m
- K126-1/2 Innershield gun 350A – 62° – 1.6 mm – 3/4.6 m



#### Technical Specifications Standard Wire Feeders

Power Feed	Item Number	Drive Roll	Cooling	Input Power	Output Power	WFS Range (m/min)	Wire Size Range (mm)			Weight (kg)	Dimensions HxWxD (mm)
							Solid	Cored	Aluminium		
PF-22	K14110-1	4	A/W	40V DC	500A@60%	1.0-22	0.8-2.4	0.9-2.4	1.0-2.4	14.8	380 x 220 x 590
PF-26	K14138-1									15.2	



#### Functions & Features

Power Feed	User Interface	Graphic Display	Standard Controls	Meters Digital	Crater	Hot/Soft Start	Pre-settings	Synergic	Memory/Limits	USB
PF-22	U2-U6	-	√	-	√	-	√	√	-	-
PF-26	U2-U6	√	√	√	√	√	√	√	√	√



# Power Feed® 40, 42, 44, 46

Designed to work with digital power sources

The Power Feed wire feeder range is designed to combine easy handling and control by the welder with perfect wire feeding. Dependent on your application, the PF feeders are supplied as standard with a standard undercarriage but are available to be hung from a boom or placed on a special heavy duty undercarriage to be used in tough industrial conditions.

The basic model PF-40 supports only CV MIG mode (5) but the rest of the range (PF42/44/46) supports all modes installed on Multi-process or the advanced digital (ArcLink®) Lincoln power sources. The feeders are differentiated by User Interface (UI) and functions installed. The basic UI "U0" provides just control of Voltage and WFS where as the more advanced "U2" is equipped with bright digital meters, Trim function, mode selector and main starting/ending functions. The UI group "U4" & "U6" utilizes TFT colour display with intuitive icon language and variety of special functions. Top class feeder PF46 with UI "U6" combines all functions with USB connection, Dual Procedure, Memory, Limits and also Light Switch inside the feeders which supports wire installation in dark, industrial conditions. All Power Feed 4X series can be optionally equipped with gas flow-meter, heavy duty undercarriage or lifting eye.

## Features

- Small rugged and easy to handle feeders; with bright digital meters (PF40 excl.).
- Utilises ArcLink® – the leading digital communication protocol for welding, making it the best choice for seamless, time critical integration with the power source.
- Four roll drive system with powerful motor.
- Hot/Soft start Crater Run (PF40 excl.) and all standard features.
- Easy-to-understand user interface panels make it easy to set weld parameters.
- Remote control on the gun (PF46 & option for PF44).
- Features push-pull capability for great performance on aluminium (PF46 & option for PF44).
- Equipped with wheels as standard.

### Processes

- MIG
- Flux-Cored
- Stick
- TIG
- Gouging



### Recommended Power Sources

- Power Wave® S350, S500, S700
- Speedtec® 405S, 405SP, 505S, 505SP

### Base Unit Includes

- Drive rolls 1.0-1.2mm Steel
- User Interface

### Key Options

- K14121-1 User Interface U2
- K14122-1 User Interface U4
- K14123-1 User Interface U6
- K14124-1 Pendant box (12-pins)
- K14127-1 Cart PF HD
- K14128-1 Kit Lifting eye
- K14125-1 Kit 12-pin socket (F)
- K14120-1 Kit 6-pin socket (F)
- K2909-1 6-pin(F) to 12-pin(M) Adapter for Remote Control – 0.5m
- K14111-1 Kit Gas flow meter
- K14126-1 Remote Control RC-42 (2 pots)
- K10095-1-15M Remote control – 15m
- K14091-1 Remote Control MIG 7m
- K870 Foot Amptrol
- KP10519-8 Adapter TIG EURO
- K14131-1 ArcLink-T Flex
- K14132-1 Adapter 5-pin(M)/12-pin(F)
- KP14017-x Drive roll Kit range (4R)



### Technical Specifications Standard Wire Feeders

Product	Item Number	Drive Roll	Cooling	Output Power	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
							Solid	Cored		
PF-40	K14106-1	4	A/W	500A@60%	40V DC	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	

### Functions & Features

Power Feed	User Interface	Graphic Display	Standard Controls	Meters Digital	Crater	Hot/Soft Start	Pre-settings	Synergic	Memory/Limits	Locking Function
PF-40	U0	-	√	-	-	-	-	-	-	-
PF-42	U2	- (LEDs)	√	√	√	-	√	√	-	-
PF-44	U4	TFT	√	√	√	√	√	√	-	√
PF-46	U6	TFT	√	√	√	√	√	√	√	√



# Power Feed<sup>®</sup> 84 Single & Dual

## Single and dual bench/boom wire feeders

The Power Feed<sup>™</sup> 84 wire feeder is revolutionary in its ease of use and flexibility. Designed to maximize the capabilities of the Power Wave<sup>®</sup> S range, the combination of high-tech power source and wire feeder, outperform traditional arc welding methods. The Power Feed<sup>™</sup> 84's design allows the control box to be placed anywhere – near the work piece or on top of the power source. The Power Feed<sup>™</sup> 84 Dual is designed for shops that require welding flexibility and superior welding performance in one complete wire feeder package. Dual feeder allows two different types of wire on the feeder, allowing you to weld stainless or aluminum from one power source. Combine this wire feeder flexibility with one of Lincoln's new Power Wave<sup>®</sup> power sources, and gain the capability to MIG weld, STT weld or Pulse weld with ease.

### Features

- World-class arc performance on steel, stainless steel, aluminium and other materials.
- Waveform Control Technology<sup>®</sup> featuring patented processes such as Pulse-On-Pulse<sup>®</sup> (for a TIG-like bead appearance) and Power Mode<sup>®</sup> (for a stable arc at low current levels).
- Utilises ArcLink<sup>®</sup> – the leading digital communication protocol for welding, making it the best choice for seamless, time critical integration with the power source.
- Pulsed MIG process – great for low spatter, low heat input and out-of-position applications – makes virtually any operator a better welder!
- Easy-to-understand user interface panel with large numeric displays make it easy to set weld parameters.
- Features push-pull capability for great performance on aluminium.



#### Processes

- MIG
- MIG Pulse
- MIG STT
- Flux-Cored
- Stick
- TIG

#### Recommended Power Sources

- Power Wave<sup>®</sup> S350, S500
- Speedtec<sup>®</sup> 405S, 405SP, 505S, 505SP

#### Basic Unit Includes

- Spool Cover
- Fast Mate Gun Adapter
- Water Connection Kit
- Twist Mate (Male) to Lug Adapter
- Power Feed 84- U/I, No Reel, USB
- Control Cable Asbly
- Wire Reel Stand
- Drive Roll, 1,2mm V-Groove
- Drive Roll, 1,6mm V-Groove

#### Key Options

- K10349-PG(W)-x Interconnecting cable (W-water), X=5,10,15m
- K3336-3 PF84 – Bench to Boom conversion
- KP1505-x Drive roll kit range (Steel & Cored)
- KP1507-x Drive roll kit range (Aluminium)
- D-1901-076-1R & D-1319-010-1R Adapter for gas quick connector



### Technical Specifications of Wire Feeders

Product	Item Number	Drive Roll	Cooling	Output power	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
							Solid	Cored		
PF84 CE Single ONE PAK	K3329-1	4	A/W	600A@60%	40V DC	2-30	0.6-1.6 (high speed)	1.0-2.0 (high speed)	25.8	450 x 430 x 770
PF84 CE Dual ONE PAK	K3331-1						0.6-2.4 (low speed)	1.0-3.0 (low speed)		





# LN-25 Pro & Pro Dual

## Portable construction wire feeder

Built upon the tradition and success of the LN™-25, the new LN™-25 PRO is designed to be simple, reliable and easy to service. The LN™-25 PRO is ideal for field construction and fabrication, shipyards and rental companies. The MAXTRAC® wire drive enhances performance while the replacement case (and many other upgrade options) can be installed in less than five minutes. The LN™-25 PRO is available in 2 models: Standard & Dual Pro.



- The Standard model can be powered across the Arc the feeder utilises the Arc voltage to drive the feeder.
- The Dual Pro model features a voltage control knob for superior arc control, digital meters for increased monitoring, MIG-STT® capability and can be powered with either a control cable or across the arc.

### Features

- Performance – all models: 2-Step/trigger interlock provides comfort for long welds sturdier and rugged spindle design with an incorporated brake.
- Performance – standard: analog voltmeter with polarity indicator LED automatically adjusts to welding polarity.
- Performance – dual power model: digital meters for accurate monitoring, display shows wire feed speed or amperage and welding voltage.
- Reliability: lightweight, impact and flame resistant polycarbonate case design keeps the internal components protected. Potted and trayed PC board protects against moisture and corrosion. Reel locking mechanism eliminates spindle cross threading.
- Serviceability: case can be replaced in less than 5 minutes – eliminates downtime.

#### Technical Specifications of Wire Feeders

Product	Item Number	Drive Roll	Cooling	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
						Solid	Cored		
LN 25 Pro	K2613-5	2	A	15-110V DC	1.3-177	0.6-1.6	0.8-2.0	16	381 x 221 x 599
LN 25 Pro Dual	K2614-8			15-110V DC or 24-42V AC					

#### Processes

- MIG
- Innershield

#### Recommended Power Sources

- All CV sources and Engine driven welders

#### Key Options

- K10194-xM Weld power cables (LN25 Pro)
- K1841-x Weld power cables (LN25 Pro Dual)
- K115-1/2 Innershield gun 450A – 82° – 3mm – 3/4.6 m
- K126-1/2 Innershield gun 350A – 62° – 1.6 mm – 3/4.6 m
- KP1696-045S Drive roll kit solid wire 1.2 mm
- KP1696-x Drive roll kit range
- KP1697-x Drive roll kit range
- K489-9 Fast-Mate Adaptor Kit
- K2596-2 Replacement case
- K2330-2 Preflow, Postflow and Burnback timer kit
- K435 Spindle adapter for 6.3 kg coils
- K14095-1 Adapter 8/14-pin



### Digital

# Power Feed® 25M

## Premium Welding Solution with a Portable Design!

Lincoln Electric offers this full featured design in a robust package that can meet industry challenges. The lightweight construction, durable case, as well as the patented design of the MAXTRAC® wire drive system deliver the results you need.



### Features

- Hardened and Construction Ready. Built tough for rough environments. From construction to shipbuilding, this design will meet your expectations. Packaged standard with either a durable aluminium or plastic case.
- Internal Lighting. High intensity LEDs illuminate the wire drive.
- Internal heating maintains control of humidity on your consumable by keeping the package warmed and protected in an enclosed case.
- Mode Select Panel (MSP4) allows easy access to the Power Wave® library of waveforms. Advanced controls and set-up options are only a fingertip away!
- Dual Procedure and Memory Buttons allow you to set-up an A and B procedure to simplify "on the-fly" switching!

#### Processes

- MIG
- Stick
- Pulsed MIG
- TIG
- MIG-STT®
- Gouging
- Flux-Cored

#### Basic Unit Includes

- Electrode Pigtail
- MSP4 Panel
- Dual Procedure/Memory Panel
- Push-Pull Gun Connector
- Remote Control Connector
- Gun Receiver Bushing
- Standard & Extra Torque Gearing



#### Technical Specifications of Wire Feeders

Product	Item Number	Drive Roll	Gearing	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
						Solid	Cored		
Power Feed® 25M (Aluminium case)	K2536-4	2	Standard Speed (factory setting)	40V DC	2.5-20.3	0.6-1.6	0.8-2.0	15.9	368 x 216 x 597
Power Feed® 25M (Plastic Case)	K2536-5		Extra Torque				1.3-10.4		

## LN 23P

### Built for the job

The LN 23P semiautomatic wire feeder is able to handle the toughest work sites and is an excellent choice for pipe welding applications. It is portable, easy to setup and ideal for reaching difficult locations.

### Features

- Weighs less than 23 kg including optional Magnum® Innershield® gun and 14 lb (6.3 kg) coil of electrode.
- Continuous wire feed speed control, voltage control and analog voltmeter are standard.
- Completely enclosed wire reel keeps the wire free of contaminants.
- Equipped with trigger interlock circuit to reduce operator fatigue.
- Gun-mounted two-position switch allows on-the-fly change to 83% of the preset wire feed speed.
- Electrode and control cable quickly connect to power source.
- One or two LN 23P wire feeders can be directly connected to recommended Lincoln power sources, but only one can be used at a time.



#### Processes

- Innershield

#### Base Unit Includes

- Drive roll kit 1.0-1.2 mm,
- Water connection kit

#### Recommended Power Sources

- DC 400
- V350 PRO

#### Key Options

- K10093-xM Interconnection cables
- K345-10 Innershield gun 350A – 62° – 1.6 to 2 mm – 3 m
- K350-2 Adapter kit



#### Technical Specifications of Wire Feeders

Product	Item Number	Drive Roll	Cooling	Rated Output	Input Power	WFS Range (m/min)	Wire Size Range (mm)		Weight (kg)	Dimensions HxWxD (mm)
							Cored	Shielded		
LN 23P	K316L-6	2	A/W	350A/60%	14-50V DC	0.76 – 6.7	1.7-2.0		12.3	521 x 229 x 483

# VIKING WELDING HELMETS

Built for demanding specifications. Lightweight, solar-powered Viking helmets come in many designs.

To choose one for yourself,  
see helmets section of this catalogue  
or visit our website:  
[www.lincolnelectric.eu](http://www.lincolnelectric.eu)



### REMOTE PENDANTS

**Foot Amptrol™ Connector Kit**

Provides 7.6 m of remote output control for TIG welding. (6-pin plug connection).

Item n°:  
K2320-1



### GAS SOLENOID AND BURNBACK KITS

**Preflow, Postflow and Burnback Timer Kit**

Provides adjustable delay of power source output shut off to prevent electrode sticking in crater when using high wire feed speeds.

Item n°:  
K2330-2 for LN-25 PRO, LN-25 PRO Dual Power



### WATER CONNECTION KITS

**Water Connection Kit**

Includes quick connect fittings on front and back of wire drive for use with water-cooled guns and coolers.

Kit provides for one gun.

Item n°:  
K590-6



### STANDS AND UNDERCARRIAGES



**Heavy Duty Wire Reel Stand**

For use with Lincoln 4.5-27.2 kg wire packages that use a 51 mm spindle. Hole in stand fits over lift bail.

Item n°:  
K1524-3



**Caster Kit – Light Duty**

Mounts to the Heavy Duty Wire Reel Stand. Allows easy movement of wire feeder.

Item n°:  
K1556-1



**Insulated Lift Bail**

Allows the entire wire feeder to be hung from a crane or hook. Use with Heavy Duty Wire Reel Stand.

Item n°:  
K1555-1



## CONTROL CABLES AND ADAPTERS

Description	Connection	Order No.	
<b>Wire Feeder Control Cables</b>			
Wire Feeder Control Cable	Male 14-pin to Female 8-pin	K10093-15M (for LN-23P )	
Wire Feeder Control Cable	Fast-mate (x2), gas hose, protection	K10347-xM (for LF )	
Wire Feeder Control Cable	Fast-mate (x2), gas hose, protection	K10370-xM (for LF )	
<b>Extensions and Adapters</b>			
Wire Feeder Control Cable Extension (May require K1501-10, depending on the feeder)	Male 14-pin to Female 14-pin	K1797-10 (3 m) K1797-50 (15.2 m) K1797-100 (30.4 m)	
Adapter Cable for Control Cable to Terminal Strip of Power Source	Female 14-pin control cable to terminal strip	K1798	
<b>ArcLink®/Linc-Net™ Control Cables</b>			
ArcLink®/Linc-Net™ Control Cables	For Power Wave®/Power Feed® Systems	K1543-8 (2.5 m) K1543-25 (7.6 m) K1543-50 (15.2 m) K1543-100 (30.4 m)	
Heavy Duty ArcLink®/Linc-Net™ Control Cables	For Power Wave®/Power Feed® Systems	K2683-25 (7.6 m) K2683-50 (15.2 m) K2683-100 (30.4 m)	
<b>14-pin Cables</b>			
Submerged Arc Equipment	For synchronizing Power Wave® AC/DC 1000® SD and connecting MAXsa™ Heads	K1785-4 (1.2 m) K1785-8 (2.4 m) K1785-16 (4.9 m) K1785-25 (7.6 m) K1785-50 (15.2 m) K1785-100 (30.4 m)	

## WELD CABLES

### Coaxial Weld Power Cables

Recommended for STT™ and pulse welding when using long distances between feeder and power source.

- Item n°:  
**K1796-25** 7.6 m, 350 amps
- Item n°:  
**K1796-50** 15.2 m, 350 amps
- Item n°:  
**K1796-75** 22.8 m, 325 amps
- Item n°:  
**K1796-100** 30.4 m, 300 amps

## ADAPTERS AND PACKAGES

### Twist Mate™ to Lug Adapter

For connection of lugged cable to Twist Mate™ connectors, 457 mm long.

Item n°:  
**K2176-1**

### Twist Mate™ Cable Plug

For connecting welding cable to output terminal receptacles.

- Item n°:  
**K852-70** for 50-70 mm<sup>2</sup> cable
- Item n°:  
**K852-95** for 95 mm<sup>2</sup> cable.



### 22.6-27.2 kg Coil Adapter

Adapts 22.6-27.2 kg coils of Lincoln Electric electrode to 51 mm spindle.

Item n°:  
**K1504-1**



### Plastic Wire Cover Kit

Plastic enclosure for 13.6-19.9 kg wire packages.

Item n°:  
**K1634-1**



### Plastic Wire Cover Kit

Plastic enclosure for up to 27.2 kg wire packages.

Item n°:  
**K1634-2**

### Wire Straightener

Straightens wire for better, smoother feeding.

Item n°:  
**K1733-1**



### Spindle Adapter for Readi-Reels® and Spools

51 mm O.D. spindle for mounting Readi-Reels® and 51 mm I.D. spools up to 27.2 kg capacity to custom installations.

Item n°:  
**K162-1**



### Polycarbonate Portable Feeder Case

Replace a damaged case without replacing the entire unit.

Item n°:  
**K2596-2**



## WELD POWER CABLES

Connection	Description	Order No.
<b>Twist-Mate™ to Lug</b>	1/0, 350A, 60% duty cycle, 3.0 m	<b>K1840-10</b>
<b>Lug to Lug</b>	3/0, 600A, 60% duty cycle, 3.0 m	<b>K1842-10</b>
	3/0, 600A, 60% duty cycle, 10.6 m	<b>K1842-35</b>
	3/0, 600A, 60% duty cycle, 18.2 m	<b>K1842-60</b>
	4/0, 600A, 60% duty cycle, 33.5 m	<b>K1842-110</b>
<b>Twist-Mate™ to Twist-Mate™</b>	1/0, 350A, 60% duty cycle, 7.6 m	<b>K1841-25</b>
	2/0, 300A, 60% duty cycle, 10 m	<b>EXT-50-10M</b>

## WIRE ADAPTERS, COVERS AND STRAIGHTENERS

### 200 mm O.D. Spool Adapter

Permits 200 mm O.D. spools to be mounted on 51 mm O.D. spindles.

Item n°:  
**K468**



### 6 kg Innershield® Coil Adapter

Permits 6 kg Innershield® electrode coils to be mounted on 51 mm O.D. spindles.

Item n°:  
**K435**



### 10-14 kg Readi-Reel® Adapter

Adapts 10-14 kg Lincoln Electric Readi-Reels® of electrode to 51 mm spindle.

Item n°:  
**K363P**



15 kg Stein basket adaptor

Item n°:  
**K10158-1**

## 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

#### STANDARD GUNS

- LGS 150G, 150A @ 60%  
**K10429-15-xM** 3 m, 4 m or 5 m
- LGS 250G, 200A @ 60%  
**K10429-25-xM** 3 m, 4 m or 5 m
- LGS 360G, 300A @ 60%  
**K10429-36-xM** 3 m, 4 m or 5 m



#### PREMIUM GUNS

- LGP 250G, 200A @ 60%  
**K10413-25PHD-xM** 3 m, 4 m or 5 m
- LG 250GFX, 200A @ 60%  
**K10413-25FX-xM** 3 m, 4 m or 5 m
- LGP 360G, 300A @ 60%  
**K10413-36PHD-xM** 3 m, 4 m or 5 m
- LGP 420G, 350A @ 60%  
**K10413-42PHD-xM** 3 m, 4 m or 5 m



### Water cooled

#### STANDARD GUNS

- LGS 505W, 450A @ 100%  
**K10429-505-xM** 3 m, 4 m or 5 m



#### PREMIUM GUNS

- LGP 550W, 500A @ 100%  
**K10413-55PHD-xM** 3 m, 4 m or 5 m







2-Roll Wire Drive Systems

### DRIVE ROLL AND GUIDE TUBE KITS

POWER WAVE® C300, LN-25 PRO,  
LN-25 PRO Dual Power

Description	Product Number
<b>Solid Wire (includes stainless steel)</b>	
0.6-0.8 mm	KP1696-030S
0.9 mm	KP1696-035S
0.9, 1.2 mm	KP1696-1
1.0 mm	KP1696-2
1.2 mm	KP1696-045S
1.4 mm	KP1696-052S
1.6 mm	KP1696-1/16S

**Cored Wire**

0.9-1.1 mm	KP1697-035C
1.0-1.2 mm	KP1697-045C
1.2 mm	KP1697-052C
1.4 mm	KP1697-052C
1.7-1.8 mm	KP1697-068
2.0 mm	KP1697-5/64
2.4 mm	KP1697-3/32

**Aluminium Wire**

0.9 mm	KP1695-035A
1.0 mm	KP1695-040A
1.2 mm	KP1695-3/64A
1.6 mm	KP1695-1/16A

POWERTEC® 161C, 191C, 231C, 271C, 205C, 255C, 305C, LF-22M

Description	Product Number
<b>Solid Wire (includes stainless steel)</b>	
0.6-0.8 mm	KP14016-0.8
0.8-1.0 mm	KP14016-1.0
1.0-1.2 mm	KP14016-1.2

**Cored Wire**

0.9-1.1 mm	KP14016-1.1R
1.2-1.6 mm	KP14016-1.6R

**Aluminium Wire**

1.0-1.2 mm	KP14017-1.2A
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4-Roll Wire Drive Systems

POWERTEC® 305C Pro, 355C Pro, 425C Pro,  
Power Feed® 40, Power Feed® 42, Power Feed® 44,  
Power Feed® 46, LF-24M, LF-24MPro, LF-33S, LF-33

Description	Product Number
<b>Solid Wire (includes stainless steel)</b>	
0.6-0.8 mm	KP14017-0.8
0.8-1.0 mm	KP14017-1.0
1.0-1.2 mm	KP14017-1.2
1.2-1.6 mm	KP14017-1.6

**Cored Wire**

0.9-1.1 mm	KP14017-1.1R
1.2-1.6 mm	KP14017-1.6R
1.6-2.4 mm	KP14017-2.4R

**Aluminium Wire**

1.0-1.2 mm	KP14017-1.2A
1.2-1.6 mm	KP14017-1.6A

**PF 22, PF26**

Description	Product Number
<b>Solid Wire</b>	
0.6-0.8 mm	KP14150-V06/08
0.8-1.0 mm	KP14150-V08/10
0.9-1.1 mm	KP14150-V09/11
1.0-1.2 mm	KP14150-V10/12
1.2-1.6 mm	KP14150-V12/16
1.4-2.0 mm	KP14150-V14/20
1.6-2.4 mm	KP14150-V16/24

**Cored Steel Wire**

0.9-1.1 mm	KP14150-V09/11R
1.0-1.2 mm	KP14150-V10/12R
1.2-1.6 mm	KP14150-V12/16R
1.4-2.0 mm	KP14150-V14/20R
1.6-2.4 mm	KP14150-V16/24R

**Aluminium Wire**

0.6-0.8 mm	KP14150-U06/08A
0.8-1.0 mm	KP14150-U08/10A
1.0-1.2 mm	KP14150-U10/12A
1.2-1.6 mm	KP14150-U12/16A
1.6-2.4 mm	KP14150-U16/24A



2-Roll Wire Drive Systems

### DRIVE ROLL AND WIRE GUIDE KITS

LN-23P

Description	Product Number
<b>Solid Wire</b>	
0.6-0.9 mm	KP653-025S
0.8 mm	KP653-030S
0.9-1.0 mm	KP653-035S
1.2-1.4 mm	KP653-052S

**Cored Wire**

0.9 mm	KP653-035C
1.2-1.4 mm	KP653-052C

**Cored or Solid Wire**

1.6 mm	KP653-1/16
1.7-2.4 mm	KP653-3/32
2.4 mm	KP1505-3/32
1.0-1.2 mm	KP14017-1.2A

**Hardfacing**

2.8 mm	KP653-7/64H
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2-Roll Wire Drive Systems

NA-3S, NA-4, NA-5

Description	Product Number
<b>Solid Wire</b>	
2.4-5.6 mm	KP1899-1
1.6, 2.0, 2.4 mm	KP1899-2
0.9, 1.2, 1.4 mm.	KP1899-3

**Cored Wire**

1.0-1.4 mm	KP1899-4
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**Knurled Drive Roll**

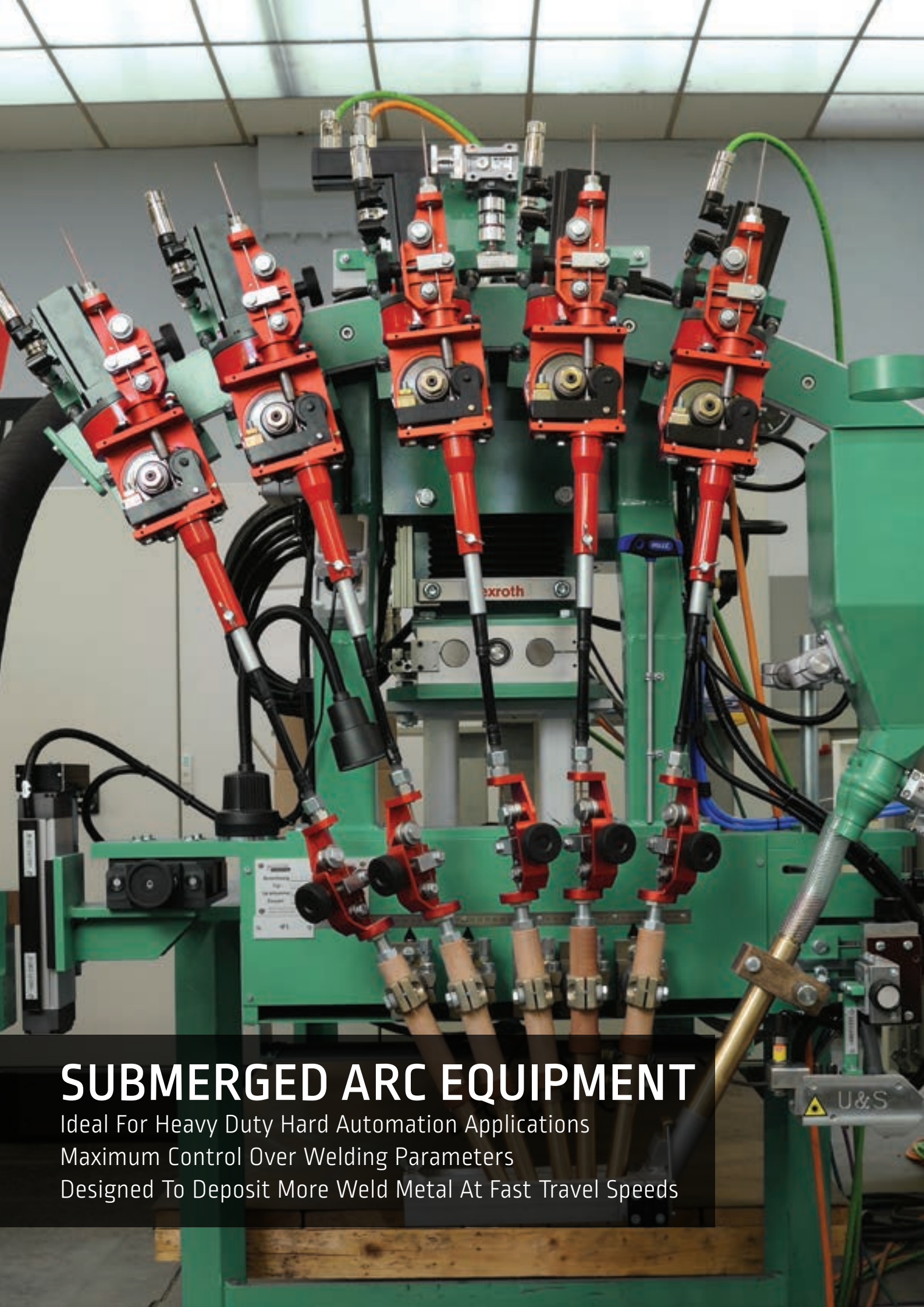
2.4-5.6 mm	KP1885-1
1.6-2.4 mm	KP1886-1

**Outgoing Guide**

2.4-5.6 mm	KP1963-1
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**Incoming Guide**

2.4-5.6 mm	KP2116-2
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# SUBMERGED ARC EQUIPMENT

Ideal For Heavy Duty Hard Automation Applications

Maximum Control Over Welding Parameters

Designed To Deposit More Weld Metal At Fast Travel Speeds



# Submerged Arc Equipment

Digital Power Source	<b>Power Wave® AC/DC 1000® SD</b> Increased productivity, quality and flexibility 	Digital Wire Feeder	<b>Cruiser® &amp; Tandem Cruiser®</b> Submerged Arc Welding Tractor 	<b>MAXsa™ 10 controller</b> ArcLink® - enabled Controller for Power Wave® AC/DC 1000® SD Systems 	<b>MAXsa™ 22 Feed Head</b> Submerged Arc Hard Automation Wire Drive for Power Wave® AC/DC 1000® SD Systems 	<b>MAXsa™ 19 controller</b> Submerged Arc Systems for Integrators and Robotic Applications for Power Wave® AC/DC 1000® SD Systems 			
	Digital Wire Feeder		<b>MAXsa™ 29 Feed Head</b> Submerged Arc Systems for Integrators and Robotic Applications for Power Wave® AC/DC 1000® SD Systems 	Analog Power Source	<b>Idealarc® DC-1000, Idealarc® DC-1500</b> Industrial DC Multi-process welders 	<b>Idealarc® AC-1200</b> Automatic Submerged Arc Welding Power Source 	Analog Wire Feeders	<b>NA-3, NA-4 &amp; NA-5 Control &amp; Heads</b> Automatic welding systems 	<b>LT-7 Tractor</b> Submerged Arc DC Wire Feeder 

	Mode	Polarity	Output Range (Amps)	Voltage (V)	Submerged Arc	Flux-cored	Arc Gouge	Waveform Control technology®	ArcLink® Digital communications	Production monitoring	Warranty (years)
<b>Digital Power Source</b>	<b>OUTPUT</b>			<b>INPUT</b>	<b>PROCESS</b>			<b>FEATURES</b>			
Power Wave® AC/DC 1000® SD	CC/CV	AC/DC	100-1000	380/400/460/500/575	●			■	■	■	3
<b>Analog Power Source</b>											
Idealarc® DC-1000	CC/CV	DC	150-1300	200/380/440	●	●	●				3
Idealarc® DC-1500	CC/CV	DC	200-1500	380/440	●	●	●				3
Idealarc® AC-1200	CC	AC		380/415/440/460	●						3

KEY: ○ Excellent ● Good ▲ Possible

	WIRE FEED SPEED RANGE (m/min)	WIRE SIZE RANGE (mm)	PROCESS	FEATURES
<b>Digital Wire Feeder</b>				
Cruiser® & Tandem Cruiser®	0.4-12.5	1.6-5.6		●
MAXsa™10 controller	-			●
MAXsa™ 22 Feed Head	0.25-12.7			●
MAXsa™ 19 controller	-			●
MAXsa™ 29 Feed Head	0.25-12.7			●
<b>Analog Wire Feeders</b>				
NA-3 Control & Heads	0.6-15.2	0.9-5.6	1.1-4.0	● ● ●
NA-4 Control & Heads	subject to arc voltage	1.6-5.6	-	●
NA-5 Control & Heads	0.6-19.7	0.9-5.6	1.1-4.0	● ● ●
LT-7 Tractor	2.5-10.2	2.4-4.8	-	●

# Power Wave® AC/DC 1000® SD

Increased productivity, quality and flexibility

Software-driven output delivers maximum control over the deposition rate and penetration in single or multi-arc environments.

## Features

- 380-575 VAC, 50/60 Hz Voltage Input – offers the ability to be connected anywhere in the world.
- No hardware reconfiguration required with easy polarity switching – eliminates downtime.
- Easy to parallel machines or run multiple arcs.
- 3-Phase voltage Input – eliminates the imbalance associated with transformer-based AC welding machines.
- 95% power factor correction – enables connection of multiple machines on the same plant infrastructure for lower installation costs.
- Severe duty – can be stored outdoors. IP23 rated.
- ArcLink®, ethernet and DeviceNet™ communication – offers remote process monitoring, control and troubleshooting.
- True Energy™ – measures, calculates and displays instantaneous energy in the weld for critical heat input calculations.



- Production Monitoring™ 2.2 – track equipment usage, store weld data and configure limits to assist in welding efficiency analysis.
- Software based controls – can be upgraded as new features become available.
- iARC™ digital control – 90 times faster than the previous generation, delivering a responsive arc.

## Technical Specifications

Product	Item Number	Input Power	Output Range (A)	Rated Output	Input Current @ Rated Output	Weight (kg)	Dimensions HxWxD (mm)
Power Wave® AC/DC 1000® SD	K2803-1*	380/400/460/500/575V/3/50/60	100-1000	1000A/44V/100%	82/79/69/62/55	363	1250 x 488 x 1174

\* (1) Filter is required to meet CE conducted emission requirements. The K2444-3 must be used with the K2803-1.

**Processes**

- Submerged arc

**Recommended Wire Feeders**

- K3048-1 Cruiser™ Tractor
- K3083-1 Tandem Cruiser™
- K2814-1 MAXsa® 10 Controller
- K2370-2 MAXsa® 22 Feed Head

**Key Options**

- K2444-3 CE Filter (Required option for UE)
- K1811-x Heavy Duty Process Sense Lead – 15/30 m
- K2683-x Heavy Duty ArcLink® Control Cable – 7.5/15/30 m
- K1785-x Control Cable (Heavy Duty) – 3.5/7.5/15 m
- K285 Concentric Flux Cone Assembly
- K231-1 Contact Nozzle Assembly for 2.4, 3.2, 4.0 mm Wire
- K148A Positive Contact Nozzle Assembly for 2.4-3.2 mm Wire
- K148B Positive Contact Nozzle Assembly for 4.0-4.8 mm Wire

**ArcLink COMMUNICATIONS PROTOCOL**

**THE LINCOLN ELECTRIC GREEN INITIATIVE**  
Inverter Technology reduces energy demand  
www.lincolnelectric.com/green



## Digital Wire Feeder

# Cruiser® & Tandem Cruiser®

Submerged Arc Welding Tractor

The self-propelled, modular Cruiser™ and Tandem Cruiser™ travel carriages can deliver deposition rates up to 13 kg per arc, per hour for butt and fillet joints on lengthy plate welding applications common in bridge or barge decking, large tank fabrication or shipbuilding.

## Features

- Reliable operation – strong, rigid and stiff, especially when you need it most:
  - Sturdy welded base frame.
  - Substantial steel mast stands up to daily construction site use.
  - Simple cast wheels – equipped with high temperature and slip resistant rubber tires.
  - Robust tube and clamp design – trouble-free feeding component mounting.
  - Adjustable extended length outriggers – make it easy to guide tractor movement.
- Advanced control pendant – removable, lightweight, impact resistant aluminium user interface can be



used to save procedures, apply limits and lockouts for any or all controls.

- Multiple configurations – flexible system allows set up with or without a track and three- or four-wheel operation. Tandem model not recommended for three wheel operation.

## Technical Specifications

Product	Item Number	Input Power	Rated Output	Travel Speed (m/min)	Gear Box	Wire Feed Speed range (m/min)	Wire Size Range (mm)	Weight (kg)	Dimensions HxWxD (mm)
Cruiser Tractor	K3048-1	40V DC	1000A / 100%	0.25-2.5	142:1 95:1 <sup>(1)</sup> 57:1 <sup>(1)</sup>	0.4-5.0	2.4-5.6	94	736 x 584 x 914
Tandem Cruiser™ Tractor	K3083-1					0.4-7.6 1.3-12.7	1.6-3.2 1.6-2.4	136	927 x 1156 x 1054

<sup>(1)</sup> Optional

**Processes**

- Submerged arc

**Unit Includes**

- Conduit Tubing, 1.5 m
- 4 mm, 600 amps Contact Nozzle Assembly; 4 mm. Contact Tip
- Nozzle Extension 127 mm
- Curved Nozzle Extension, 45°
- Nozzle Extension Insulator
- Flux Tubing and Hose Clamps
- Wire Reel Assembly
- Wheels for Track Operation
- Front and Rear Outriggers
- Enclosed Wire Reel (2 for Tandem)

**Note: Does not include a control cable.**

**Key Options**

- K1733-5 Wire Straightener
- K396 Track Section
- K3070-1 Tiny Twin Kit

**ArcLink COMMUNICATIONS PROTOCOL**

**INPUT 40 VDC**    **OUTPUT**



# MAXsa™ 10 controller

## ArcLink® - enabled Controller for Power Wave® AC/DC 1000® SD Systems

The MAXsa® 10 controller offers a single monitoring and control point for the entire hard automation welding system. Operators have full control over AC and DC welding parameters and easy PLC interfacing to control fixture travel, timers and other system commands.



### Features

- Severe duty ready – the controller is IP23 rated and ready for operation in harsh environments.
- Pendant box – mount the controller in the standard protective box or remove the pendant for hand-held operation. Extend hand-held operation from 1.2m up to 30.5m with an ArcLink® extension cable.
- Eight procedure memories – pre-set and save your optimal welding parameters for repeating applications and recall later for fast changeovers.
- User-friendly controls – clear digital display and controls make it easy to set weld modes, AC operation, strike/start/end options, travel stop/start, timers and other parameters.
- Limit control – apply operator procedure limits or lockout on any or all parameters.
- Waveform Control Technology® – allows the user to choose from a library of pre-programmed weld modes. Parameters for each mode can be adjusted within a limited range to achieve optimal balance between deposition rate and penetration.

### Technical Specifications

Product	Item Number	Input Power	Weight (kg)	Dimensions HxWxD (mm)
MAXsa™ 10	K2814-3	40V DC	11.3	381 x 259 x 102

- Processes**
- Submerged arc
- Recommended Power Source**
- Power Wave® AC/DC 1000® SD
- Key Options**
- K2462-1 MAXsa® 10 Mounting Bracket (only required for TC-3 Travel Carriage)



# MAXsa™ 22 Feed Head

## Submerged Arc Hard Automation Wire Drive for Power Wave® AC/DC 1000® SD Systems

Designed specifically for hard automation applications, the MAXsa® 22 Wire Drive delivers accurate wire feeding of submerged arc wires. Based on Lincoln's proven gearbox and extruded aluminium feedplate, the MAXsa® 22 model features a 32VDC permanent magnet, high torque motor that delivers plenty of torque to push up to 5.6 mm diameter solid wire. A top speed of up to 12.7 m/min can be achieved by changing the gear ratio.



### Features

- Flexible configuration – can be used in single, tandem, Twinarc® or multiple arc applications.
- Closed loop speed control – facilitates full control over starting, running and stopping wire feed speed.
- IP23 rated – tested to withstand harsh environments.
- Standard conversion kits – used to change the speed ratio to match the requirements of your application.
- Multi-axis rotation – rotational feed head adjustment in two planes allows flexible, accurate setup for fixturing or arc locating. Additional positioning flexibility can be achieved with the optional horizontal and vertical lift adjuster.



- Processes**
- Submerged arc
- Unit Includes**
- Adjustable wire straightener
  - Cross-seam adjuster
  - Electrical valve flux hopper
  - Mounting bracket



- Key Options**
- K2163-60 Weld Power Cable, 18m
  - K1842-110 Weld Power Cable, 33m
  - K219 Flux Hopper Assembly
  - K231-1 Contact Nozzle (2.4, 3.2, 4.0 mm)
  - K148A Positive Contact Nozzle (2.4-3.2 mm)
  - K148B Positive Contact Nozzle (4.0-4.8 mm)
  - KP2721-1 Nozzle Extension, 5 inches
  - K149-5/32 Nozzle Extension (4.0 mm)
  - K386 Narrow Gap Nozzle
  - KP2108-1B1 Contact tip
  - K285 Concentric Flux Cone Assembly
  - K225 Sub Arc Twinarc® Nozzle for 2.0-2.4 mm
  - K129-x Tiny Twinarc® (1.6/2.0/2.4 mm)
  - K281 Tiny Twinarc® Solid Wire Straightener
  - K162-1 Spindle Kit, 2 Inch Hub
  - K29 Vertical Lift Adjuster, 100 mm
  - K96 Horizontal Adjuster, 50 mm
  - K278-1 Spreadarc Oscillator

### Technical Specifications

Product	Item Number	Input Power	Rated Output	Gear Box	Wire Feed Speed range (m/min)	Wire Size Range <sup>01</sup> Solid (mm)	Weight (kg)	Dimensions HxWxD (mm)
MAXsa™ 22 Head	K2370-2	40V DC	1000A / 100%	142:1 95:1 <sup>01</sup> 57:1 <sup>01</sup>	0.4-5.0 0.4-7.6 1.3-12.7	2.4-5.6 1.6-3.2 1.6-2.4	36.3	305 x 355 x 254

<sup>01</sup> 142:1 gear box is standard. Conversion Kit supplied for conversion to 95:1 with Wire Drive (K2370-2, K2312-2, or K2311-1)



# MAXsa™ 19 Controller

## Submerged Arc Systems for Integrators and Robotic Applications for Power Wave® AC/DC 1000® SD Systems

The MAXsa® 19 controller is specifically designed to relay wire feed commands to the MAXsa® 29 when a customer-supplied user interface is used in place of the MAXsa® 10 controller. Typically, this occurs in a variety of third party integrator solutions that include integration hardware like turning rolls, panel lines, seamers and pipe mills fixturing.



### Features

- Compact size – makes it easy to position in custom integrator solutions.
- Fast digital communication – with the Power Wave® AC/DC 1000® SD via ArcLink® cable and to the wire drive via a 14-pin control cable.
- Standard I/O connector block – for start/stop, forward/reverse feed and shutdown input interfacing with external accessories.
- Standard status indicator – aids diagnostic system troubleshooting.
- IP23 rated – tested to withstand harsh environments.

### Technical Specifications

Product	Item Number	Input Power	Weight (kg)	Dimensions HxWxD (mm)
MAXsa™ 19	K2626-4	40V DC	3.2	229 x 267 x 76

Processes  
• Submerged arc



INPUT OUTPUT  
40 VDC 40 VDC



# MAXsa™ 29 Feed Head

## Submerged Arc Systems for Integrators and Robotic Applications for Power Wave® AC/DC 1000® SD Systems

The compact MAXsa® 29 Feed Head is intended for integrator solutions, as well as the latest submerged arc robotic applications.



### Features

- Closed loop speed control – facilitates full control over starting, running and stopping wire feed speed.
- 32V DC permanent magnet, high torque motor – delivers plenty of torque to push up to 5.6 mm diameter solid wire. Top speed of up to 12.7 m/min can be achieved by changing the gear ratio.
- IP23 rated – tested to withstand harsh environments.
- Standard conversion kits – used to change the speed ratio to match the requirements of your application.
- Standard adjustable wire straightener.
- Multi-axis rotation – rotational feed head adjustment in one plane allows flexible, accurate setup for fixturing.

### Technical Specifications

Product	Item Number	Input Power	Rated Output	Gear Box <sup>(1)</sup>	Wire Feed Speed Range <sup>(1)</sup> (m/min)	Wire size Range <sup>(1)</sup> Solid (mm)	Weight (kg)	Dimensions HxWxD (mm)
MAXsa™ 29 Head	K2312-2	40V DC	1000A / 100%	142:1 95:1 <sup>(1)</sup> 57:1 <sup>(1)</sup>	0.4-5.0 0.4-7.6 1.3-12.7	2.4-5.6 1.6-3.2 1.6-2.4	35	330 x 406 x 254

<sup>(1)</sup> 142:1 gear box is standard. Conversion Kit supplied for conversion to 95:1 with Wire Drive (K2370-2, K2312-2, or K2311-1)

Processes  
• Submerged arc

### Key Options

- K2163-60 Weld Power Cable, 18 m
- K1842-110 Weld Power Cable, 33 m
- K219 Flux Hopper Assembly
- K231-1 Contact Nozzle (2.4, 3.2, 4.0 mm)
- K148A Positive Contact Nozzle (2.4-3.2 mm)
- K148B Positive Contact Nozzle (4.0-4.8 mm)
- KP2721-1 Nozzle Extension, 5 inches
- K149-5/32 Nozzle Extension (4.0 mm)
- K386 Narrow Gap Nozzle
- KP2108-1B1 Contact tip
- K285 Concentric Flux Cone Assembly
- K225 Sub Arc Twinarc® Nozzle for 2.0-2.4 mm
- K129-x Tiny Twinarc® (1.6/2.0/2.4 mm)
- K281 Tiny Twinarc® Solid Wire Straightener
- K162-1 Spindle Kit, 2 Inch Hub
- K29 Vertical Lift Adjuster, 100 mm
- K96 Horizontal Adjuster, 50 mm
- K278-1 Spreadarc Oscillator



INPUT OUTPUT  
40 VDC



# Idealarc® DC-1000, Idealarc® DC-1500

## Industrial DC Multi-process welders

If an application requires pure welding power combined with multi-process power, then the Idealarc® DC-1000 with 1300 amps of smooth DC output is your best investment. Designed for Semi-automatic and automatic welding, the precise control of the Idealarc® DC-1000 provides superior MIG, flux-cored, submerged-arc welding and excellent air carbon arc gouging with up to 16.0 mm diameter carbons.

The Idealarc® DC-1500 is a multi-process DC arc welding power source for automatic welding applications. It produces outstanding arc characteristics on both constant voltage and constant current processes for great welding versatility from a single power source. A single range full output control potentiometer provides outstanding welding performance.

### Features (Idealarc® DC1000)

- 500 amp output connections provide enhanced arc characteristics for low amperage flux-cored (FCAW) and MIG welding procedures.
- Single range control for precise output control and easy operation.
- Terminal strip and output studs for remote connections and cable.
- Low profile case allows installation of a work-bench and stacking up to 2 machines to conserve floor space.
- Removable side panels for easy access to internal parts.
- Line voltage compensation maintains weld consistency, even with line voltage changes of ±10%.
- Internal components, including windings, rectifiers and circuit boards, are coated to protect against the effects of moisture and corrosion.
- Seven-year warranty on power rectifier.

### Features (Idealarc® DC1500)

- Full range output voltage control for easy operation and precise output control.
- Mode switch used to select the desired output characteristics for the process being used.
- Line voltage compensation for maintaining weld consistency, even with line voltage changes of ±10%.
- Fan cooled with electronic and thermostatic protection from current overload and excessive temperatures.
- Function lights built into the printed circuit boards speed diagnostics.
- Windings and rectifiers protected against moisture and corrosive environments.
- Removable side panels for easy access to internal parts.
- Recessed front panel protects operating controls.
- Terminal strip and output studs for remote connections and cable.
- Seven-year warranty on power rectifier.



#### Processes

- Submerged arc
- Flux-Cored
- Gouging

#### Recommended Wire Feeders

- NA-3
- NA-5
- LT-7

#### Key Options

- **K10376** Adapter M14/Dinse[F]
- **FL060180600-L** FLAIR 600 Gouging Torch
- **K2187-2** Water cooler COOL ARC® 40 [DC-1000]
- **K10420-1** Coolant Acorox (2x5l) [DC-1000]
- **K1897-1** Paralleling Kit [DC-1000]
- **K1900-1** Paralleling Kit [DC-1500]
- **K1520-2** 42 Volt Transformer Kit [DC-1000]
- **K857** Remote Output Control, 7.6 m
- **K857-1** Remote Output Control, 30 m
- **K843** Amptrol™ Adapter Kit
- **K1798** Adapter Cable - Male 14-pin [DC-1000]
- **K1770-1** Factory Undercarriage [DC-1000]
- **K1737-1** All-Terrain Undercarriage [DC-1000]
- **K3019-1** Arc Tracker™ [DC-1000]

### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Current Range (A)	Rated Output	Input Current @ Rated Output	Weight (kg)	Dimensions HxWxD (mm)
Idealarc® DC-1000	K1387-3	200/380/440V/3Ph	150-1300	1250A/44V/50% 1140A/45V/60% 1000A/44V/100%	193/112/97	372	781 x 567 x 991
Idealarc® DC-1500	K1383-4	380/440/3Ph	200-1500	1500A/60V/100%	184	644	1453 x 566 x 965



# Idealarc® AC-1200

## Automatic Submerged Arc Welding Power Source

The AC1200 submerged arc power source is specifically designed for operation with Lincoln Electric's NA-4 automatic wire feeder. It is a power source that you can count on day-in and day-out to provide proven performance.

### Features

- Scott® connection taps standard for two AC welding heads operated in tandem.
- Rheostat adjusts the output settings while welding or at idle.
- Three output studs with overlapping ranges.
- ±10% input line voltage compensation for maintaining weld consistency.
- Thermostat protection from current overload and excessive temperatures.
- Terminal strip for remote control and wire connections and output studs for welding cables.
- Removable side panels for easy access to internal parts.
- Windings and rectifiers protected against moisture and corrosive environments.
- Seven-year warranty on power rectifier.



### Processes

- Submerged arc

### Recommended Wire Feeders

- NA-4

### Key Options

- K10376 Adapter M14/Dinse(F)



### INPUT



### OUTPUT

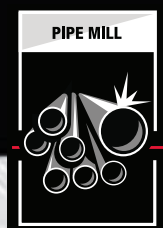


### Technical Specifications

Product	Item Number	Input Power	Current Range (A)	Rated Output	Input Current @ Rated Output	Weight (kg)	Dimensions HxWxD (mm)
Idealarc® AC-1200	K3140-2	380/415/440/460V/1Ph	200-1500	1200A/44V/100%	380V: 230A 460V: 182A	742	1580 x 559 x 965



# SUBMERGED ARC WELDING FOR EVERY INDUSTRY



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



# NA-3, NA-4 & NA-5 Control & Heads

## Automatic Welding Systems

Improve productivity with the NA-3S, NA-4, or NA-5 automatic wire feeders. These systems have been specially designed to deposit more weld metal at faster travel speeds which eliminates bottlenecks and cuts costs.

### Features

- Solid state controls allow precise control of welding procedures, striking characteristics, as well as bead size and shape.
- Easily adjusted for a wide range of processes, feed speeds and wire sizes.
- Compact units with excellent flexibility to fit into simple fixtures or the most complex automated production lines.
- Rugged construction minimizes downtime and maintenance costs.



### Technical Specifications

Product	Item Number	Input Power	Wire Feed Speed Range <sup>(1)</sup> (m/min)	Wire Size Range <sup>(1)</sup> Solid - mm	Gear Box <sup>(1)</sup>
NA-3S Controller	K210-2	115V AC	0.6 -16.5	0.9-5.6	-
NA-4 Controller	K388-2		0.6 -16.5*		-
NA-5 Controller	K356-2		0.6 -16.5		-
NA-3S/NA-4 Head	K208A		0.4-7.4*	2.4-5.6	142:1
	K208B		0.6-10.8*	0.9-2.4	95:1
NA-3SF/NA-4F Head	K209A		0.4-7.4*	2.4-5.6	142:1
	K209B		0.6-10.8*	0.9-2.4	95:1
NA-5S Head	K346A		0.4-7.4	2.4-5.6	142:1
	K346B		0.6-10.8	1.6-2.4	95:1
	K347A		0.4-7.4	2.4-5.6	142:1
NA-5SF Head	K347B	0.6-10.8	1.6-2.4	95:1	

### Processes

- Submerged arc



### Recommended Power Sources

- NA-3S / NA-5: Flextec 650, Idealarc® DC-1000, Idealarc® DC-1500
- NA-4: Idealarc® AC-1200

### Key Options

- K221 Start controls PC board
- K245 Crater fill control PC board
- K2163-60 Power Cable, 18 m [NA-5]
- K1842-110 Power Cable, 33 m [NA-5]
- K29 Vertical Adjuster, 100 mm
- K96 Horizontal Adjuster, 50 mm
- K219 Flux Hopper
- K278-1 Spreadarc Oscillator
- K231-1 Contact Nozzle [2.4, 3.2, 4.0 mm]
- K148A Positive Contact Nozzle [2.4-3.2 mm]
- K148B Positive Contact Nozzle [4.0-4.8 mm]
- KP2721-2 Nozzle Extension, 45°
- K285 Concentric Flux Cone
- K386 Narrow Gap Nozzle
- K149-5/32 Nozzle Extension [4.0 mm]
- K129-x Tiny Twinarc® [1.6/2.0/2.4 mm]
- K225 Twinarc® Nozzle [2.0-2.4 mm]
- K389 Flux Hopper
- K223 Solenoid Kit [NA-5]
- K162-1 Spindle Kit [NA-5]
- K334 Start/Crater Module [NA-5]
- K337-10 Weld Timer [NA-5]
- K336 Remote Interface [NA-5]



# LT-7 Tractor

## Submerged Arc DC Wire Feeder

The LT-7 Tractor is a self-propelled mechanized wire feeder, designed for the submerged arc process with track system capabilities. It is self-guiding and easy to operate – only one operator is usually required.

### Features

- Feeds 2.4-4.8 mm solid wires, from 2.5-10.2 m/min wire feed speed.
- Calibrated tractor drive adjusts travel speeds from 0.12-1.8 m/min.
- Vertical head lift adjuster for adjusting electrical stick-out from 12.7-1270 mm.
- Weld angle is up to 50° from vertical on either side; drag angle is up to 30° from vertical.
- Control box can be mounted either left or right, eliminating the need to return to the power source for routine procedure changes.
- Welds butts, horizontal fillet and lap joints to the left or right side of the tractor frame for convenience.



### Technical Specifications

Product	Item Number	Output Capacity	Wire Feed Speed Range <sup>(1)</sup> (m/min)	Wire Size Range <sup>(1)</sup> Solid - mm	Weight (kg)	Dimensions HxWxD (mm)
LT-7 Track Model	K395-1	600A/100%	2.5-10.2	2.4-4.8	59	698 X 838 X 356

### Processes

- Submerged arc



### Unit Includes

- Control cable 7.6 m

### Key Options

- K228-x Control cable
- K231-1 Contact Nozzle Assembly for 2.4, 3.2, 4.0 mm Wire
- K148A Positive Contact Nozzle Assembly for 2.4-3.2 mm Wire
- K148B Positive Contact Nozzle Assembly for 4.0-4.8 mm Wire
- K149-5/32 Nozzle Extension for 4.0 mm Wire
- KP2721-1 Nozzle Extension, 127 mm
- K232 Horizontal Fillet and Lap Adapter Kit
- K229 Flat Fillet Adapter Kit
- K230 Butt Seam Guide Kit
- K396 Track Section, 1.8 m
- K285 Concentric Flux Cone Assembly
- KP2268-x LT-7 Drive Roll range
- KP1890-1 Drive Roll Center 5/64-3/32 Tiny Twin
- KP1890-2 Drive Roll Side 5/64-3/32 Tiny Twin
- KP1984-1 Guide Tube Assembly 068-3/16 Incoming
- KP1985-1 Guide Tube 3/32-3/16 Outgoing
- KP1986-1 Guide Tube Outgoing Tiny Twinarc®
- KP2127-1 Guide Tube Incoming TinyTwin Tractor



**K29**

**Vertical Lift Adjuster**  
Provides 102 mm hand crank vertical adjustment of head position. Also includes up to 95.2 mm in-and-out horizontal adjustment with stops that can be preset for simple repetition of the same adjustment.



**K96**

**Horizontal Head Adjuster**  
Provides crank adjustment of head position. Has 51 mm horizontal travel.



**K219**

**Automatic Flux Hopper Assembly**  
For submerged arc welding. Includes electric flux valve.



**K230**

**Butt Seam Guide Kit**  
Mount in place of the standard front wheel to ride in a V-groove or open 3.2-9.5 mm butt joint, keeping the wire in required alignment.



**K231-1**

**Submerged Arc Contact Nozzle Assembly**  
For 2.0 through 4.8 mm wire electrode at currents generally below 600 amps. Outer flux cone gives full flux coverage with minimum consumption.



**K232**

**Horizontal Fillet and Lap Adapter Kit**  
Includes a rear guide wheel, head tension spring and front guide wheel assembly on an adjustable arm which rides in the joint to maintain alignment and electrode angle. Kit includes separate front guide wheel assemblies for fillet and lap joints. Welds to the left or right of the tractor's center line.



**K285**

**Concentric Flux Cone Assembly**  
For use with K148B, Positive Contact Nozzle Assembly. Provides concentric flux coverage around the electrode.



**K299**

**Wire Reel Assembly**  
Includes wire reel for 22.7-27.2 kg coils, wire reel mounting and brake.



**K334**

**Starting or Crater Module**  
Permits additional settings of wire feed speed and voltage for an adjustable period of time (10 seconds max). Can be used for either a starting procedure or a crater fill procedure. If both are required, two assemblies must be ordered.



**K336**

**Remote Interface Module**  
Permits remote operation of the NA-5 Inch Up, Inch Down, Start and Stop Functions by either of the following user-supplied external signals and provides electrical isolation of the NA-5 control circuitry.



**K363P**

**22-30 lb. Readi-Reel® Adapter**  
Adapts 10-14 kg Lincoln Electric Readi-Reels® of electrode to 51 mm spindle.



**K396**

**Track Section**  
Each section provides 1.8 m of travel.



**K1520-1**

**115V/42V Transformer Kit**  
Provides a way to use wire feeders requiring 42V input power with power sources that have 115V AC available on the terminal strip.



**K1897-1 (DC-1000)**

**K1900-1 (DC-1500)**

**Paralleling Kit**  
Permits paralleling of two power sources.



**K1733-5**

**Wire Straightener [Automatics]**  
Includes a three roll wire straightener with adjustable pressure. For up to 5.6 mm diameter wire.



**K1811-50/-100**

**Sense Lead Kit**  
Required to accurately monitor voltage at the arc for heavy duty applications.  
Order: **K1811-50** for 15.2 m  
Order: **K1811-100** for 30 m



**K3090-1**

**Tube and Clamp Kit**  
One 760 mm aluminium splined tube; two 380 mm aluminium splined tubes; one 760 mm steel tube; 8 clamp assemblies with keys; 2 outrigger assemblies; hardware.



**K3089-1**

**Cross Slide Assembly**  
Includes: two slides with 100 mm of travel (1 cross slide assembly included with each tractor).



**K3070-1**

**Tiny Twin Kit for Cruiser™**  
Includes a second spindle, drive rolls and 95:1 gears.



**K3019-1**

**Arc Tracker™**  
Connect the Arc Tracker™ between any DC welding power source and the work clamp to access a wide array of data monitoring information regarding your welding arc, including True Energy™ and Production Monitoring™.



**K3154-1**

**Butt Joint Guide Kit**  
Used to track the joint and guide the Tandem Cruiser™ for plate and decking applications.







# ENGINE DRIVEN WELDERS

World's Most Respected Products Among Pipe Welders  
Built Tough for Extreme Environments  
Strong Arc Gouging Capability



# Engine Driven Welders

Commercial

**Ranger® 305D**  
300A DC diesel engine driven welder



Industrial

**Vantage® 410 CE & Vantage® 500 CE**  
Compact, multi-process, excellent value



	Mode	Polarity	DC	Pipe	DC TIG	AC generator power range [W]	Stick	Pipe	DC TIG touch start	MIG	Flux-cored	Gouging	Warranty (years)
<b>Commercial</b>	<b>OUTPUT</b>					<b>INPUT</b>	<b>PROCESS</b>						
<b>Ranger® 305D</b>	CC/CV	DC	20-305	40-300	20-250	8000	●	●	●	●	●	●	3
<b>Industrial</b>													
<b>Vantage® 410 CE</b>	CC/CV	DC	30-410	40-300	20-250	13200	●	●	●	●	●	●	3
<b>Vantage® 500 CE</b>			30-500			14500	●	●	●	●	●	●	3

KEY: ○ Excellent ● Good ▲ Possible

## ENGINE DRIVEN WELDERS

## Accessories

### CABLE KITS (GROUND/ELECTRODE)

With ground cable & electrode holder (clamp)  
Item n°:

- KIT-300A-50-5M [300A - 50 mm<sup>2</sup> - 5 m]
- KIT-400A-70-5M [400A - 70 mm<sup>2</sup> - 5 m]



#### Cable kits (ground)

Item n°:

- GRD-300A-50-5M [300A - 50 mm<sup>2</sup> - 5 m]
- GRD-300A-50-10M [300A - 50 mm<sup>2</sup> - 10 m]
- GRD-400A-70-10M [400A - 70 mm<sup>2</sup> - 10 m]



### REMOTE CONTROLS

1 potentiometer, 6-pins, 15 m  
Item n°:  
K10095-1-15M

Extension cable  
Item n°:  
K10398



### UNDERCARRIAGES

**Medium Two Wheel Trailer.**  
For heavy duty road, off-road, plant and yard use. For Vantage.  
Item n°:  
K2636-1

**Four-Wheeled Steerable Yard Trailer.**  
For off-road, plant and yard use. Includes an automatically engaging drawbar lock when the drawbar is raised to the vertical position. For Vantage.  
Item n°:  
K2641-1

**Undercarriage for site towing.**  
For Ranger 305D  
Item n°:  
K10397-1



### SPARK ARRESTOR KIT

Attaches to muffler exhaust tube. Virtually eliminates spark emissions.  
Item n°:  
K10405-1 for Ranger 305D  
K903-1 for Vantage





# Ranger® 305D

## 300A DC diesel engine driven welder

The Ranger® 305 D CE is a powerful 300 amps DC multi-process diesel engine driven welder. It provides excellent arc characteristics in Stick (Conventional or Pipe), TIG, MIG or Arc Gouging. The Ranger is totally enclosed to protect the 45 litre fuel tank, water-cooled Kubota 18.8 HP D722 diesel engine. Delivering 8000 Continuous (8500 peak) watts of 115/230/400V AC generator power it is obvious this was designed for welding professionals with high demands.

### Features

- Excellent DC multi-process welding for general purpose stick, downhill pipe (stick), TIG, cored-wire, MIG (100% CO<sub>2</sub> and mixed gas) and arc gouging with up to 4.8mm carbons.
- Fully enclosed stainless steel case for equipment protection and low noise.
- Lincoln's® Chopper Technology® provides easy starts, a smooth arc, low spatter and excellent bead appearance.
- A portable powerhouse-delivers 8,500 peak (8,000 continuous) watts of 115/230/400V 50Hz AC generator power). Enough power to run lights, tools, or pumps and weld all at the same time!
- Arc force control provides a soft or more forceful digging arc.
- Built-in "hot" start for easier starts and restrikes.
- Touch-Start DC TIG®—Lift tungsten to start the arc.
- Digital meters for amps and volts output make it easy to precisely set your procedures. Fuel gauge, engine protection light for oil pressure and engine temperature on top for monitoring engine performance.
- Lift TIG DC capability (SA).



### Processes

- Stick
- TIG
- MIG
- Flux-Cored
- Gouging

### Key Options

- **KIT-300A-50-5M** Cable Kit 300A – 50 mm<sup>2</sup> – 5 m
- **GRD-300A-50-xM** Ground cable 300A – 50 mm<sup>2</sup> – 5/10/15 m
- **K10376** Adapter M14/Dinse(F)
- **K10095-1-15M** Remote control – 15 m
- **K10405-1-INST** Chalwyn valve
- **K1847-1** Spark arrestor



### Technical Specifications

Product	Item Number	Current Range (A)	Rated Output	Type of Engine	Cylinders	Operation Speeds (rpm)	Weight (kg)	Dimensions HxWxD (mm)
Ranger® 305D	K2279-3	20-305 DC 40-300 pipe welding 20-250 DC TIG	250A/30V/100%	Kubota D722 Diesel	3	High idle: 3100 Full load: 3000 Low idle: 2200	341	909 x 546 x 1327



# Vantage® 410 CE

# Vantage® 500 CE

## Compact, multi-process, excellent value

The Vantage® 410 CE and 500 CE are one of the most compact and powerful engine-driven welders / generators in the construction, pipe or rental fleet market today. They are also the most quiet with a smooth running 4-cylinder water-cooled diesel engines. Use these multi-process welders for Stick welding with a large variety of electrodes, lift TIG welding, CV welding with shielding gas or Innershield wires and arc gouge up to 8mm carbons for Vantage 410 and 10 mm carbons for Vantage 500. You will value the superior arc performance delivered by exclusive Lincoln Chopper Technology. You will also appreciate VRD™ (Voltage Reduction Device™) which reduces OCV (open circuit voltage) in the CC-Stick weld mode for added safety.

### Features

- Compact case with stainless steel enclosure.
- Arc gouging up to 8mm (V410) and 10mm (V500).
- Downhill pipe welding mode. Excellent for cellulosic electrodes.
- Built-in "Hot Start" for easier starts and restrikes.
- Plenty of AC 50 Hz generator power: 3-phase 400V / 1 phase 220V / 1 phase 115V.
- Reliable Four-Cylinder Engine, water cooled.
- Innovative Service Access.
- Stainless steel enclosure delivers added protection and durability.
- Low noise to fit with European norms.



#### Processes

- Stick
- TIG
- MIG
- Flux-Cored
- Gouging

#### Key Options

- **KIT-400A-70-5M** Cable Kit 400A – 70 mm<sup>2</sup> – 5 m
- **GRD-400A-70-xM** Ground cable 400A – 70 mm<sup>2</sup> – 5/10/15 m
- **E/H-400A-70-xM** Electrode holder 400A – 70 mm<sup>2</sup> – 5/10 m
- **K10376** Adapter M14/Dinse(F)
- **K10095-1-15M** Remote control – 15 m
- **K903-1** Spark Arrestor Kit
- **K2636-1** Medium Two-Wheel Trailer & Duo-Hitch® Ball/Eye Hitch
- **K2641-2** Four-Wheel Yard Trailer with Duo-Hitch® Ball/Eye Hitch



<b>INPUT</b>	<b>OUTPUT</b>
	410CE
	500CE

### Technical Specifications

Product	Item Number	Current Range (A)	Rated Output	Type of Engine	Cylinders	Operation Speeds (rpm)	Weight (kg)	Dimensions HxWxD (mm)
Vantage® 410 CE	K4178-1	30-410	350A/32V/100% 410A/23V/100%	Kubota V1505 EPA Tier 4 Final	4	Full load: 1800 Low idle: 1350	488	913 x 642 x 1524
Vantage® 500 CE	K2503-3	30-500	400A/36V/100% 450A/38V/60%	Perkins 404D-22 TURBO Diesel			586	







# PLASMA CUTTING SYSTEMS

Portable Cutting Power

High Travel Speeds

Great for Hobby, Farm, Autobody or Industrial Use



Inverter 1Ph

## Invertec® PC-210

Portable cutting power up to 10 mm



Inverter 3Ph

## Tomahawk® 1025, Tomahawk® 1538

High Performance Plasma Cutting



	Mode	Polarity	Output Range (Amps)	Cutting thickness (mm)	Cut	Arc Gouge	Pierce	Warranty (years)
<b>Inverter 1Ph</b>								
<b>OUTPUT</b>					<b>PROCESS</b>			
Invertec® PC-210	CC	DC	10-25	10	●	●	●	2
<b>Inverter 3Ph</b>								
Tomahawk® 1025	CC	DC	25-60	25	●	●	●	3
Tomahawk® 1538			20-100	40	●	●	●	3

KEY: ○ Excellent ● Good ▲ Possible

## PLASMA CUTTERS

## Accessories

### CUTTING CIRCLES

Item n°:  
W0300699A



### UNDERCARRIAGES

2-wheeled cart, delivered as a kit, for use with PC210

Item n°:  
W0200002



4-wheeled undercarriage with gas cylinder platform delivered as a kit, for use with Tomahawk®.

Item n°:  
K2694-1



### AIR FILTER LAF1250

Sub-micron filter for compressed air.

It is designed to remove moisture, oils and sprays particles from air compressors, thus providing clean, free of oil and dry air.

Item n°:  
W88X1456A  
W8800117R (filter cartridge)



### TORCHES

#### Hand torches PC210

- PTH-C25A-CSL-3MR LC25, 3 m

#### Hand torches TH1025

- PTH-061A-CX-7M5A LC65, 7.5 m
- PTH-061A-CX-7M15A LC65, 15 m

#### Automatic torches TH1025

- PTM-061A-CX-7M5A LC65M, 7.5 m
- PTM-061A-CX-7M15A LC65M, 15 m

#### Hand torches TH1535

- PTH-101A-CX-7M5A LC105, 7.5 m
- PTH-101A-CX-7M15A LC105, 15 m

#### Automatic torches TH1535

- PTM-101A-CX-7M5A LC105M, 7.5 m
- PTM-101A-CX-7M15A LC105M, 15 m





# Invertec® PC-210

Portable cutting power up to 10 mm

The Plasma PC-210 is the most flexible plasma cutting machine you could envisage. The unit arrives ready to go, able to cut fast and precisely. Powered from a standard 230V input supply, the machine is ideal for work on site. With the PC-210 cutting need no longer be a problem, forget the grinder, simply take the torch and cut in seconds. This inverter based machine is equipped with an integrated air compressor. This provides maximum flexibility without the need for a separate compressed air supply. And, with a weight of only 18.5 kg combined with its small size, this versatile machine can be used anywhere, anytime.

## Features

- Flexible: only 230 V input required.
- High performance: innovative advanced electrode and nozzle design.
- Robust: long life compressor.
- Portable: only 18.5 kg, small and compact.
- Different materials: mild steel, stainless steel, aluminium and many more.
- Concentrated plasma stream: less heat input, less distortion.



### Processes

- Air plasma cutting
- Gouging



### Unit Includes

- 2 m-input cable
- 3 m-hand cutting torch
- Ground clamp and cable
- Air connection kit
- Cutting torch consumables kit

### Key Options

- W88X1456A Air Filter LAF1250
- W8800117R Filter Cartridge
- PTH-C25A-SL-3MR Plasma torch
- W0300699A Cutting circle
- W0200002 Undercarriage

### Applications

- On site maintenance
- Service tasks
- Small construction sites
- General installations
- Air ducting installation (HVAC)
- Demolition work
- Rental



- Using internal compressor: recommended up to 10 mm mild steel.
- Can also be used with an external-compressor: recommended up to 10 mm mild steel



### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Rated Output	Cutting Capacity (mm)	Flow Rate	Inlet Pressure	Output Range (A)	Weight (kg)	Dimensions HxWxD (mm)
Invertec® PC210	K12038-1	230V/1Ph	25A/90V/35% 20A/88V/60% 15A/86V/100%	10	80l/min+/-20% @5.0bar	6.0bar	10-25	18.5	385 x 215 x 480



# Tomahawk® 1025 Tomahawk® 1538

## High Performance Plasma Cutting

The Tomahawk® 1025 and 1538 Plasma cutting machines are built to handle harsh environmental conditions using Lincoln tunnel technology to separate the PCB's and sensitive parts from the contaminating cooling airflow. The improved mains voltage tolerances and robust metal case with large protective rubber corners also make these machines suitable for operation on site with a generator or within a workshop environment.

The Lincoln Tomahawk® concept for Plasma cutting focuses on three elements:

- S – An innovative and patented striking system preserves the electrode tip and extends its lifetime.
- P – Circular enhancements with improved radial airflow and innovative electrode/nozzle design concentrate the plasma stream.
- L – The internally cooled electrode and torch head and electrode/nozzle design considerably increase their lifetime.

### Features

- Starting: innovative advanced arc starting without HF.
- Performance: innovative advanced electrode and nozzle design.
- Longer lifetime: innovative advanced design increases lifetime of consumables.
- Faster: higher travel speeds and plate thickness.
- Flexible: multiple torch configurations.
- Different materials: mild steel, stainless steel, aluminium and many more.
- Concentrated plasma stream: less heat input, less distortion.



### Technical Specifications

Product	Item Number	Primary Voltage [50-60Hz]	Rated Output	Cutting Capacity [mm]	Flow Rate	Inlet Pressure	Output Range (A)	Weight (kg)	Dimensions HxWxD [mm]
Tomahawk® 1025	K12048-1	400V/3Ph	60A/40% 40A/100%	25	130l/min+/- 20% @ 5.0bar	6.0 bar	20-60	22	389 x 247 x 489
Tomahawk® 1538	K12039-1		100A/40% 60A/100%	40	180l/min+/- 0% @ 5.0bar	7.0 bar	20-100	36	455 x 301 x 618



#### Processes

- Plasma air cutting
- Gouging

#### Unit Includes

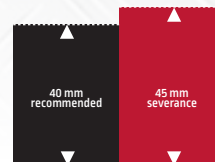
- 2 m-input cable
- 3 m-hand cutting torch
- Ground clamp and cable
- Air connection kit
- Cutting torch consumables kit

#### Key Options

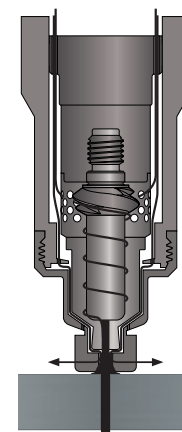
- K12049-1 Remote control (TH1538)
- W05X1086A Remote Control Kit
- W0300699A Cutting circle
- K2694-1 Undercarriage (TH 1025)
- W88X1456A Air Filter LAF1250
- W8800117R Filter Cartridge



**TH 1025**  
Recommended up to 25 mm mild steel (severance 30 mm)



**TH 1538**  
Recommended up to 40 mm mild steel (severance 45 mm)



LC105 torch design with drag cup







# TRAINING EQUIPMENT

Revolution in Welding Education



# Manufacturing's workforce challenge



Anyone who interfaces with the manufacturing sector knows this cold, hard fact: we need more people, we need more investment in training and we need them now.

Consider this - more than 600,000 skilled positions are unfilled in the United States.

The manufacturing sector needs to improve its image in order to draw future workers to these skilled trades.



**THE QUESTION: HOW?**

**THE ANSWER: VIRTUAL REALITY WELDING**

More than 80 percent of U.S. employers report they have a moderate to severe shortage of skilled workers.

In a world where skilled labor shortages are rising, the investment and need to not only train but also attract and engage new skilled workers is at an all-time high.

Today's youth — the future workforce — relies on the virtual world. This means the tactics to engage and interest them in learning the skills needed for future careers need to change.

**Virtual reality welding is ideal as:**

- An interactive, engaging teaching tool.
- An HR screening tool for testing applicants' welding skills.
- A tool for refreshing the welding skillset and knowledge of an existing workforce.



# LINCOLN ELECTRIC GOES VIRTUAL

Introducing Lincoln Electric's VRTEX® Simulated Welding Training Solutions

## VRTEX® 360 / VRTEX® Mobile / VRTEX® Engage™

The systems offer hands-on training that's consistent with standard industry methodology and evaluation criteria in a fun "gaming" inspired environment, thanks to a specially equipped virtual reality welding helmet.

### VRTEX® welding training simulators:

- Attract and engage students.
- Measure and record real-time results.
- Enhance welding training programs.
- Reduce energy consumption, waste and scrap.
- Provide tangible savings.



All the VRTEX® 360, VRTEX® Mobile and VRTEX® Engage™ systems have rich, vivid graphics and feature real-world welding and fume removal equipment.



## VRTEX® 360



## VRTEX® Mobile



## VRTEX® Engage™





# ENGAGING. EXCITING. ENHANCING.

In today's digital society, virtual training systems allow students of any age to try welding in a safe, virtual environment with realistic imagery and scenes, from a military base to a motorsports garage.

**VRTEX® simulators can be used at:**

- College fairs and recruitment events
- Open houses
- Trade shows
- Seminars



**VRTEX's virtual environments are realistic...and fun.**

Students have access to the THEORY functionality which provides on-screen welding terminology and definitions to enhance additional comprehension.



# INCREASED COMPREHENSION THROUGH INTERACTION



Virtual reality welding training doesn't replace hands-on welding — it enhances it.



Connect a projector or large LCD display to the VRTEX® unit so an entire classroom can see what the welder sees under the helmet.

This brings a sense of teamwork to the learning process and increases comprehension through interaction. Multiple views show accurate, real-time measurement of such key variables as contact tip to work distance, work angle, travel angle, travel speed and position.

People will line up to try their hand at virtual welding and learn about what it takes to build a career as a skilled trades worker.



The VRTEX® system even replicates proper machine set-up. Before they can “weld”, students must enter the proper material type, process, gas flow and amperage / voltage / wire-feed speed into the system.







Challenging out-of-position welding training becomes simple with VRTEX®. Students understand what they will see and what it will feel like before they ever pick up a real welding gun.





# EFFECTIVE RESULTS EXPLAINED TO THE REAL WORLD



From a realistic welding puddle to accurate sounds and movements, what students learn virtually with VRTEX® seamlessly transfers into real-world, hands-on welding training.

Students move from a VRTEX® machine and into a real welding training booth feeling confident about set-up and welding procedures.

## Efficient Virtual Learning = Reduced Costs, Improved Safety

Using VRTEX® as the first-line training method helps reduce waste and scrap, to create a cleaner training environment.

Students can practice repetitive welding without the time needed to tack plate and toss scrap. There's no real coupon - only one that appears virtually - and quickly - with the press of a button.





# VRTEX® 360

## Engaging. Exciting. Enhancing

In today's digital society, virtual training systems allow students of any age to try welding in a safe, virtual environment with realistic imagery and scenes, from a military base to a motorsports garage.

VRTEX® simulators can be used at:

- college fairs and recruitment events,
- open houses,
- trade shows,
- seminars.

The systems offer hands-on training that's consistent with standard industry methodology and evaluation criteria in a fun "gaming" inspired environment, thanks to a specially equipped virtual reality welding helmet. VRTEX® welding training simulators:

- attract and engage students,
- measure and record real-time results,
- enhance welding training programs,
- reduce energy consumption, waste and scrap,
- provide tangible savings.

### Features

- Full featured, advanced and scalable welding simulator.
- Rich, vivid graphics and feature real-world welding and fume removal equipment.
- Students have access to the THEORY functionality which provides on-screen welding terminology and definitions to enhance additional comprehension.
- Virtual reality welding training doesn't replace hands-on welding – it enhances it.
- The VRTEX® system even replicates proper machine set-up. Before they can "weld", students must enter the proper material type, process, gas flow and amperage / voltage / wire-feed speed into the system.
- Connect a projector or large LCD display to the VRTEX® unit so an entire classroom can see what the welder sees under the helmet.
- Multiple views show accurate, real-time measurement of such key variables as contact tip to work distance, work angle, travel angle, travel speed and position.

### Additional Features

- Advanced Scoring Module (ASME/D1.1)
- AWS Bend Test
- GMAW Aluminium
- GMAW Stainless



### Technical Specifications

Product	Item Number	Input Power	Input Current	Positions	Dimensions HxWxD (mm)	Weight (kg)
VRTEX® 360 Std.	AD2433-1	115/230/1/50/60	4A @ 115, 2A @ 230	1G/PA, 2F/PB, 2G/PC, 3F/PF-PG, 3G/PF-PG, 4F/PD, 4G/PE	Machine: 1803 x 762 x 1270 Stand: 1981 x 990 x 1194	Machine: 163 Stand: 46
VRTEX® 360 Alt.	AD2433-2					
VRTEX® 360 Std. ONE-PAK®*	AD2434-1					
VRTEX® 360 Alt. ONE-PAK®*	AD2434-2					

\* ONE-PAK models include VRTEX 360 system + Upgrade 2, 3, 4 & 5 + K3205-1 + K4057-1 + K4057-2 + K4058-1 + K3206-1

#### Processes

- SMAW, GMAW, FCAW-GS, FCAW-SS

#### Joint Configurations

- Flat Plate
- Tee Joint
- Lap Joint (only with upgrade 5)
- 6" diameter schedule 40 Pipe
- 2" diameter XXS Pipe

#### Positions

- 1G/PA, 2F/PB, 2G/PC, 3F/PF-PG, 3G/PF-PG, 4F/PD, 4G/PE

#### Usability

Flexible, multi-position stand

#### Functionality

GMAW gun and retractable SMAW stinger (45° / 90° angle adjustment)

#### Key Options

- **AD2435-2** VRTEX® 360 Upgrade 2
  - AWS virtual bend test for multi-pass pipe and groove welds and a virtual bend test certificate upon successful completion
  - Advanced scoring modules based on the American Welding Society D1.1 or ASME
  - Motorsports garage virtual welding environment
  - Instructor panning view function
- **AD2435-3** VRTEX® 360 Upgrade 3
  - GMAW aluminium welding support including visual and audio sound differences
  - Shielding gas and THEORY additions specific to aluminium welding
  - Video replay for instructor or student review and analysis on the welding process
  - Entry, intermediate and advanced welder learning levels are available from the instructor view
- **AD2435-4** VRTEX® 360 Upgrade 4
  - GMAW stainless welding upgrade includes multiple tolerance levels, equipment settings, discontinuities plus visual and sound differences
  - Expanded THEORY functionality
  - Demo Weld functionality allows the instructor or student to view an example weld or a demonstration of proper technique, prior to a weld being made
  - Expanded support includes 0.052 in (1.3 mm) solid wire and SMAW on thinner material
- **AD2435-5** VRTEX® 360 Upgrade 5
  - Lap Joint-Scoring a pad-Additional pulse welds
- **K3205-1** VRTEX® 360 curriculum contains spiral bound guide and DVD video series.
- **K4057-1 & K4058-1** Project Based Lessons for the VRTEX® Welding Training Systems containing 15 lessons that can be implemented with a welding curriculum.
- **K4057-2** Project Based Lessons instructor guide

# VRTEX® Mobile

## Engaging. Exciting. Enhancing

The VRTEX® Mobile is a basic, entry level welding training system. It is designed to provide mobility in an easy to use and engaging welding training tool. The VRTEX® Mobile is ideal for initial, basic welding training, as a recruitment and engagement tool for educational and industry and for employment and screening for human resources or as an evaluation tool for instructors and educators to get a baseline on student knowledge.

### Features

- Easily transported from classroom to classroom or to a recruitment event or open house. The VRTEX® Mobile can be ready to go in a matter of minutes.
- Touchscreen user interaction provides equipment and procedural set-up on an intuitive, resistive touchscreen. All screens mirror the VRTEX® 360, making transfer of interaction seamless between the systems.
- Universal gun handle allows to connect of a MIG/MAG gun attachment for GMAW and FCAW welding and an optional accessory for SMAW.
- Tabletop coupon stand easily attaches and stands on a standard table for welding and is taken apart for quick and simple storage inside the VRTEX® Mobile.
- Consumable and environmental savings
  - No welding consumables, wire or waste
  - Track savings with the Weldometer™.

### Additional Features

- No software upgrade package

#### Processes

- GMAW standard
- FCAW-GS standard
- FCAW-SS standard
- SMAW optional

#### Joint Configurations

- Flat Plate
- Tee Joint
- Groove Joint

#### Positions

- 1G/PA, 2F/PB, 2G/PC, 3F/PF-PG, 3G/PF-PG

#### Usability

Tabletop stand with optional arm rest

#### Functionality

Unigun – standard unit includes GMAW attachment. Optional virtual / fixed 90° angle SMAW attachment

#### Number

- AD2436-1 – VRTEX® Mobile – Standard frequency
- AD2436-2 – VRTEX® Mobile – Alternate frequency

#### Units Include

- K3165-3 – SMAW kit
- K3268-1 – Arm Rest



### Technical Specifications

Product	Item Number	Input Power	Input Current	Positions	Dimensions HxWxD (mm)	Weight (kg)
VRTEX® Mobile Standard frequency	AD2436-1	115/230/1/50/60	4A @ 115, 2A @ 230	1G, 2F, 2G, 3F, 3G	Machine: 826 x 496 x 978	Machine: 57 kg; Monitor: 9 kg; Crate: 70 kg; Armrest: 3.1 kg
VRTEX® Mobile Alternate frequency	AD2436-2				Monitor: 366 x 392 x 204	



**NEW!**

# VRTEX® Engage™

## Welding starts here

For some, the first step into the virtual learning environment can be a big one. Lincoln Electric makes that first step easier with VRTEX® Engage™. This standalone foundational system is designed to introduce students to the skilled trades – specifically arc welding. VRTEX Engage includes a touch screen monitor, welding gun, tracking device and a work surface. It's all contained in a lightweight and portable carrying case that can be deployed in any setting – industrial, educational or elsewhere.

VRTEX Engage is a cost-effective tool designed to help educators train welders more efficiently and engage students to explore a career in welding. The system addresses introductory welding lessons, including safety, machine and process selection, welding procedure set up, welding theory and more. The road to educating a skilled welding workforce starts with one small step. Make that small step a giant leap with VRTEX Engage.

## Features

- Learn Anywhere – sets up anywhere to introduce skilled trades to students who are ready to explore a possible career in welding or consider degree programs in engineering and related fields.
- Capable Education Tool – provides instant feedback and assessments on safety and correct welding procedure settings.
- One Small Step - provides an introductory environment that incorporates STEM features, exposure to welding safety, procedures and techniques.
- No Fees. No Waste – helps your program reduce overall operating costs, as there is NO waste – no use of steel, electrodes, wire, shielding gas. And, with VRTEX Engage, there is no licensing requirement and no annual fees.

### Processes

- GMAW
- FCAW-GS
- FCAW-SS
- SMAW

### Components and Specifications

- MS Windows® 7 Professional 32-bit
- Intel® Core® i5 Quad Core processor
- 4GB DDR memory
- 128 GB Solid State Drive
- 2GB high-powered graphics card

### Monitor

17" LCD monitor - resistive touch screen

### Speakers

USB 2.0 powered speakers

### VRTEX Welding Transfer Modes

Simulates short arc, spray and pulse

### Language Support

English, French, German, Spanish, Turkish, Japanese, Chinese (Mandarin), Portuguese (Brazilian), Russian, Korean, Hindi and Arabic.

### Item Number

- K4299-1 - Standard Frequency
- K4299-2 - Alternate Frequency 1
- K4299-3 - Alternate Frequency 2
- K4299-4 - Alternate Frequency 3



### Technical Specifications

Product	Item Number	Input Power	Input Current	Operating System	Processor / Memory	Hard Drive	Dimensions HxWxD (mm)	Weight(kg)
VRTEX® Engage™	K4299-1	115/230/1/50/60	1A @ 115, 0.5A @ 230	MS Windows® 7 Professional 32-bit	Intel® Core® i5 Quad / 4GB	128 GB Solid State Drive	622 x 492 x 310	22.6
	K4299-2							
	K4299-3							
	K4299-4							



# WELD FUME CONTROL

Reduces Welding Fume and Dust in The Workplace  
Portable, Wall-Mounted or Shop-Wide Systems



Lincoln Electric offers a complete line of portable, stationary and engineered solutions for welding fume control – mobile, stationary, downdraft and engineered systems.

## Mobile

Mobile welding fume extractors with filtration are lightweight and rugged and are designed for light to medium duty welding fume extraction. The portable, lightweight solution is for the removal and filtration of welding fumes. This solution is ideal for facilities that require welding fume extraction in multiple locations.



## Stationary

Wall mounted, low vacuum systems are designed for extraction and filtration of welding fume. When used in conjunction with the LFA series of arms they provide welders with optimal motion and reach for their specific welding position(s) and work area. Ideal for a variety of facilities including maintenance departments, general fabrication and welding job shops, weld schools and industrial welding environments.



## Downdraft

Lincoln Electric's DownFlex® table are dual purpose work bench and extraction units, designed specifically for the removal of welding fume at the source. It can also be used to remove particulate and dust from metal grinding applications and light duty plasma arc cutting.



## Mobile / Portable Units

Lightweight, rugged design, low vacuum/high volume filtration system designed for extraction and filtration of welding fume. Ideal for facilities that require welding fume extraction in multiple locations, including maintenance departments, general fabrication and job shops and industrial welding environments. Perfect choice for small shops or companies with few welding stations, yet lightweight and small enough to be easily carried to the welding area.

### Portable Units

**The Miniflex® is ideally used for:**

- Contractors
- Maintenance Workers
- Small To Medium Fabrication Shops
- Home Hobbyists



## Miniflex®

### Portable Welding Fume Extractors

Miniflex® is a high vacuum system designed for the removal and filtration of welding fumes from light duty welding applications. The Miniflex® excels in performance and ease of handling. It can be completely disassembled in a matter of minutes for cleaning and maintenance. The convenient automatic start/stop function can extend the life of the motor brushes and reduces energy consumption, supplied as standard with:

- LongLife-H filter, filter surface 12 m<sup>2</sup>
- HEPA filter
- Aluminium prefilter
- Automatic start / stop
- Set of wheels
- Extraction hose 2.5 m
- 2 sets carbon brushes
- Capacity: 2 x 1000W





## Mobile Units

The Mobiflex® is ideally used for:

- Small Manufacturing Facilities
- Schools / Training
- Fabrication
- Plant Maintenance & repair

## Mobiflex®

### Portable Welding Fume Extractors

The Mobiflex® 200-M, 300-E and 400-MS are low vacuum systems for welding fume extraction and filtration. Their size and mobility make them ideal for smaller manufacturing facilities that require light to medium duty welding fume extraction in variable locations.



### Mobiflex® 100-NF Portable fan

Portable extraction fan with a free-blowing capacity of 2400 m<sup>3</sup>/h. Including 6 m mains cable and motor protection switch.

#### Technical Specifications

- Power Consumption – 0.75kW
- Capacity – Max. Approx. 1300 m<sup>3</sup>/h at the nozzle (with 5 m hose)
- Free-blowing Capacity – Max. 2400 m<sup>3</sup>/h
- Maximum Length of Configuration – up to 20 m
- Hose Diameter – Ø 160 mm

#### Applications

All welding processes in enclosed areas such as pipes, containers, tank trucks and ship hulls.



### Mobiflex® 200-M

Mobile unit with 50 m<sup>2</sup> LongLife filter with filter pollution indicator, supplied with 5 m mains cable.

#### Technical Specifications

- Power Consumption – 0.75 kW
- Capacity – Max. Approx. 1250 m<sup>3</sup>/h at the hood
- Arm – Ø 203 mm with rotatable hood and throttle valve

#### Hose – Ø 203 mm

- Filter efficiency – up to 99%

#### Applications

- MIG/MAG solid wire < 700 kg/year
- MIG/MAG flux cored wire < 500 kg/year
- Rutile Electrodes < 500 kg/year
- Basic Electrodes < 500 kg/year
- Not suitable for oil treated metals

### Mobiflex® 300-E

Mobile unit with 14.2 m<sup>2</sup> electrostatic filter (consisting of an ionizing cell and industrial collector) and metallic preimposed filter, supplied with 5 m mains cable.

#### Technical Specifications

- Power Consumption – 0.75 kW
- Capacity – Max. Approx. 1300 m<sup>3</sup>/h at the hood
- Arm – Ø 203 mm with rotatable hood and throttle valve

#### Hose – Ø 203 mm

- Filter efficiency – up to 99%

#### Applications

- Oil Treated Metals

### Mobiflex® 400-MS

Mobile unit with 30 m<sup>2</sup> mechanical self-cleaning RotaPulse filter with ExtraCoat treatment. Automatic filter cleaning by compressed air shot. Supplied with 5 m mains cable.

#### Technical Specifications

- Power Consumption – 0.75kW
- Capacity – Max. Approx. 1250m<sup>3</sup>/h at the hood
- Arm – Ø 203 mm with rotatable hood and throttle valve

#### Hose – Ø 203 mm

- Filter efficiency – up to 99%

#### Applications

- MIG/MAG solid wire > 700 kg/year
- MIG/MAG flux cored wire > 500 kg/year
- Rutile Electrodes > 500 kg/year
- Basic Electrodes > 500 kg/year
- Not suitable for oil treated metals.
- Dry, oil-free compressed air 4-5 bar connection required



## Stationary Units

Wall mounted, low vacuum systems are designed for extraction and filtration of welding fume. When used in conjunction with the LFA series of arms they provide welders with optimal motion and reach for their specific welding position(s) and work area. Ideal for a variety of facilities including maintenance departments, general fabrication and welding job shops, weld schools and industrial welding environments.

**The Statiflex® is ideally used for:**

- General fabrication
- Job shops
- Welding schools
- Maintenance departments



### Statiflex® 400-MS

The Statiflex 400-MS stationary, wall-mounted low vacuum system is intended for light to medium duty extraction and filtration of welding fume. The Statiflex is designed for facilities with fixed work stations and little available floor space. A self-cleaning filter is standard on the Statiflex 400-MS

#### Applications

- MIG/MAG solid wire > 700 kg/year
- MIG/MAG flux cored wire > 500 kg/year
- Rutile Electrodes > 500 kg/year
- Basic Electrodes > 500 kg/year
- Not suitable for oil treated metals.
- Dry, oil-free compressed air 4-5 bar connection required.

Statiflex 400-MS is to be connected to a CB control box.



## Statiflex®

### Wall-Mounted Welding Fume Extractors

The Statiflex® base units are stationary, wall-mounted low vacuum systems designed for light to medium duty extraction and filtration of welding fume.

#### Statiflex® 200-M

Stationary welding fume filter with disposable LongLife filter cartridge.

Filter surface area 50 m<sup>2</sup> with ExtraCoat treatment. Including filter pollution indicator. No voltage required.

#### Applications

- MIG/MAG solid wire < 700 kg/year
- MIG/MAG flux cored wire < 500 kg/year
- Rutile Electrodes < 500 kg/year
- Basic Electrodes < 500 kg/year
- Not suitable for oil treated metals

#### Statiflex® 300-E

Industrial air cleaner with electrostatic filter. To be installed in ductwork or to be connected to extraction arm(s) with fan. Including oil collector. Possibility to install an oil drainer. Filters included: FIS and FCS; pre and final filters to be ordered separately. No fan included. Max. filter capacity: 2500 m<sup>3</sup>/h. Filter surface area: 14.2 m<sup>2</sup>.

#### Applications

- Oil Treated Metals





# Downdraft Tables

Lincoln Electric's DownFlex® table are dual purpose work bench and extraction units, designed specifically for the removal of welding fume at the source. It can also be used to remove particulate and dust from metal grinding applications and light duty plasma arc cutting.

**The DownFlex® downdraft table is ideally used for:**

- Welding
- Plasma Cutting
- Grinding <sup>(1)</sup>

<sup>(1)</sup> Not suitable for grinding Aluminium, Magnesium, or other explosive materials

## DownFlex®

### Dual Purpose Workbench & Extraction Tables

The DownFlex® table is a compact table that can be placed in multiple locations around a welding shop. They combine a workbench and extraction unit designed specifically for the removal of welding fume. The DownFlex® tables can be used to remove particulate and dust from metal grinding applications, as well as fume and particulate from light duty plasma arc cutting.

#### DownFlex® 200-M

- Workbench with integrated extraction fan, 3-stage spark arrester and disposable filter cartridges.
- A Magnehelic gauge on the control panel indicates when the filter cartridges require replacement.
- For welding and grinding applications the downdraft table should be fitted with a backdraft kit for optimum division of the extraction capacity.
- Suitable for light to medium duty applications.



#### DownFlex® 400-MS

- Workbench with integrated extraction fan, 3-stage spark arrester and self-cleaning filter cartridges.
- The Magnehelic (pressure) gauge on the control panel indicates when the automatic filter cleaning systems needs to be switched on.
- The filter cartridges are cleaned from the inside by compressed airshots.
- For welding and grinding applications the downdraft table should be fitted with a backdraft kit for optimum division of the extraction capacity.
- Suitable for medium to heavy duty applications.

#### DownFlex® 400-MS/A

- Workbench with integrated extraction fan, 3-stage spark arrester and self-cleaning filter cartridges. The filter cartridges are cleaned automatically from the inside by compressed airshots.
- An integrated buzzer indicates when the filter cartridges need to be replaced.

- For welding and grinding applications the downdraft table should be fitted with a backdraft kit for optimum division of the extraction capacity.
- Suitable for heavy duty applications.



#### DownFlex® 100-NF

- Workbench, to be connected to an external extraction/filter system.
- Including backdraft kit and side panels. Extraction facility to be connected to air outlet on top of the backdraft panel.
- Contains no filters, but can be equipped with optional spark arresters to be mounted in the backdraft panel.
- Prepared for two optional dust containers



# Modular Extraction Hood

An Innovative and Flexible Solution  
to Efficient Weld Fume Control

COMBINING INNOVATION AND SIMPLICITY, THE LINCOLN ELECTRIC MODULAR EXTRACTION HOOD PROVIDES A FLEXIBLE AND EFFICIENT OPTION FOR WELD FUME EXTRACTION IN A WORK ZONE WITH AUTOMATED EQUIPMENT.

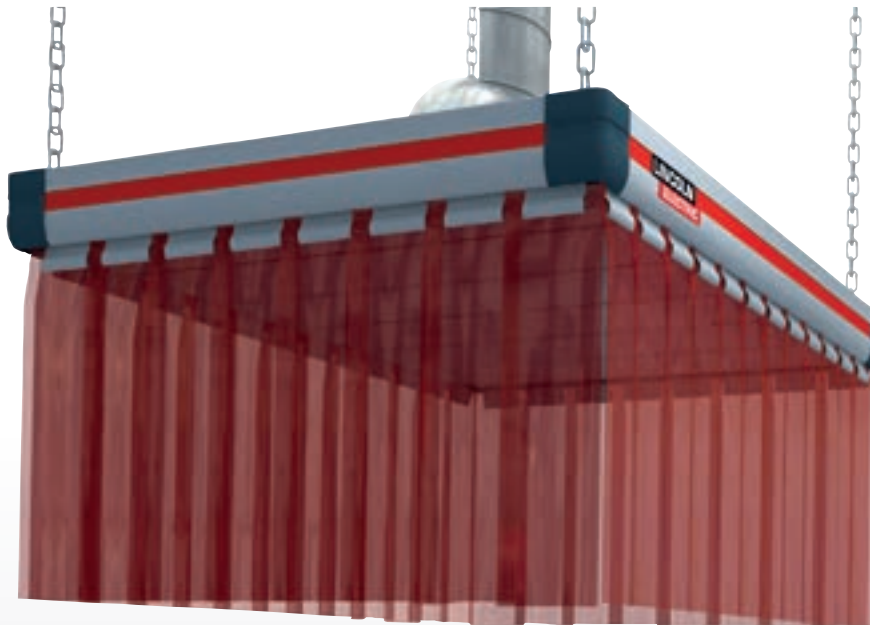
The Modular Extraction Hood is an easy to install, customizable enclosure that helps provide a cleaner work environment for a variety of industrial processes. Designed and built to Lincoln's rugged and dependable standards, these units are ideal for robotic and hard automation applications.

The Modular Extraction Hood is a reliable and practical solution to contain and extract welding, cutting, arc gouging and grinding fume from the work environment.

## PROCESSES

The Modular Extraction Hood is appropriate for use with the following industrial welding and cutting processes: Stick, TIG, MIG, Flux-Cored, Plasma Cutting, Arc Gouging, Grinding<sup>60</sup>.

For applications in which a worker is inside the work zone, exhaust at the arc or a respirator may be necessary.



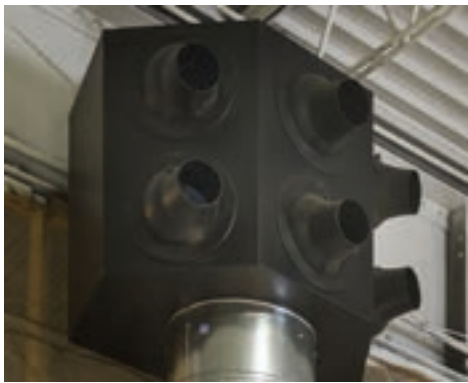


# The Diluter™ System

## Free standing general filtration system

The Diluter™ is a free-standing general filtration system that reduces the overall concentration of welding fume through continuous filtration and airflow.

The product has been designed exclusively for extracting and filtering welding fume which is released during the most common welding fabrication processes. The system supplements the natural ventilation (draft) and/or forced ventilation (roof / wall fans) which may be present to reduce the overall concentration of welding fume in the workshop.



### THE FOUR MAIN COMPONENTS:

1. **Diluter™ Unit:** Lincoln Electric's unique Diluter™ air dispersement head re-circulates the cleaned air into the workspace by means of precisely controlled outlet nozzles.
2. **Filter Unit:** A stationary filter unit incorporating automatic pneumatic filter cleaning. Air is captured and cleaned in a 3-stage 150 m<sup>2</sup> filter system with an efficiency of 99.9%. The filter unit has an external compressed air connection and particulate is collected in a waste container that can be emptied easily.
3. **Fan:** Lincoln Electric utilizes a high-efficiency 10 Hp IE3 motor in combination with 50 Hz fan technology offering the same airflow as a traditional 60 Hz fan, but with less noise, less energy consumption and less required Hp.
4. **Green-Drive™ Control System:** Lincoln Electric's Green-Drive Systems are on the cutting edge of fume technology control. Integrated controls continuously monitor system operation with a state-of-the-art pressure sensor and increase or decrease airflow to maintain the required performance levels. This results in energy savings of up to 50% and increased filter life of up to 30% over traditional on/off systems.



### Benefits

- **Cleaner work environment –**  
Reduce dust and dirt in operator and surrounding work areas.
- **Low cost installation –**  
No ductwork required.
- **Custom engineered to meet facility and application requirements.**
- **Easy installation –**  
Position the unit on the floor, a platform or a mezzanine.
- **Low noise level –**  
Will not contribute to increased noise levels.

### THE DILUTER TECHNICAL DATA

- **Airflow:** 6000 cfm
- **Input Power:** 380-480/3/50-60 Hz
- **Maximum Fan Power Consumption:** 10 HP (7.5 kW)
- **Dimensions: H x W x D:** 5245 x 1200 x 2438 mm
- **Weight:** 800 kg
- **Maximum Noise Level:** 68 dB(A) according to ISO 3746
- **Throw of the air flow is adjustable from 15-50 m**
- **Operating Temperatures:** Minimum: 5°C, Maximum: 45°C
- **Drum Capacity:** 100 liters
- **Certification:** System Controls-UL 508A, Fan Motor-UR, Frequency Inverter-UL

# Push-Pull System

## The solution for indoor air pollution in the industry

Extraction at source is impossible when welding large pieces of metalwork or when the welder needs to change his welding location frequently. In such cases, aerial extraction is the only way to tackle the layer of welding fumes. Lincoln developed the extremely effective push/pull-system especially for this purpose.

### Lincoln's push/pull-system consists of 4 components:

- 1. Extraction (Pull):** To move and extract the layer of particulate in a controlled direction, an extraction duct is designed according to your specific operation and facility layout. The extraction duct is provided with airflow grids.
- 2. Filtration:** The extraction duct is connected to a self-cleaning filtration unit. As the particulate moves through the extraction duct, it is collected on the filter media which is periodically cleaned by an automated, pneumatic cleaning system.
- 3. Fan:** The continuous extraction (pulling), filtration and re-circulation (pushing) process is generated by a fan unit specifically sized for the system and positioned downstream from the filtration unit. To significantly reduce the system's noise level, the fan is mounted in a sound absorbing enclosure and powered and controlled by intelligent controls.
- 4. Re-circulation (Push):** Once the particulates have been filtered, the filtered air can be re-circulated. By re-circulating the air, energy cost savings, specifically in climate controlled environments, can be recognized.

### Benefits

- **Cleaner work environment** – Reduce dust and dirt in operator and surrounding work areas.
- **Custom engineered to meet facility and application requirements.**
- **Easy installation** – Position the filter and fan unit on the floor, a platform or a mezzanine.
- **Low noise level** – Will not contribute to increased noise levels.

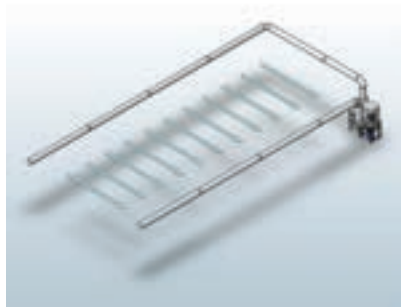


### PUSH/PULL SYSTEM SPECIFICATIONS:

- **Airflow:** 6000 cfm
- **Input Power:** 380-480/3/50-60 Hz
- **Maximum Fan Power Consumption:** 10 HP (7.5 kW)
- **Dimensions:** H x W x D: 2865 x 1200 x 2438 mm
- **Ducting Height:** 4-6 m
- **Weight:** 620 kg, does not include ducting or in/outlet grids
- **Maximum Noise Level:** 68 dB(A) according to ISO 3746
- **Throw of the air flow** is adjustable from 5-23 m
- **Operating Temperatures:** Minimum: 20°C, Maximum: 45°C
- **Drum Capacity:** 100 liters
- **Certification:** System Controls-UL 508A, Fan Motor-UR, Frequency Inverter-UL
- **Cover Area:**
  - Minimum Length: 10 m
  - Maximum Length: 50 m
  - Minimum Width: 5 m
  - Maximum Width: 23 m

## Suitable solutions for all circumstances

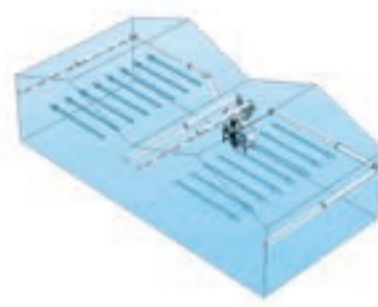
Some examples of push/pull-systems incorporating Lincoln's SCS filter units and the FAN 120 fans are given below:



U-shaped push/pull-system with 1 filter unit and 1 fan.



Double-parallel push/pull-system with 2 filter units and fans.



Composite system.





# HARD AUTOMATION



Lincoln Electric offers solutions for HARD AUTOMATION systems which encompasses fixed automation and programmable automation products including automatic welding equipment, wire feeders, process controllers, positioners, workholding devices, welding consumables and bolt-on accessories.

*Lincoln offers a full range of Pre-Engineered & Custom Products and Services:*

- Welding Gantries
- Tank Welders
- Pipe Welders
- Column and Boom Systems
- Turntables and Positioners
- Welding Lathes
- Rollerbeds

## Power Sources



Multi-process transformer and inverter Power Sources cover all requirements presented. User friendly designs allow a wide variety of weld procedures to produce consistent, quality welds.

## Column & Boom Manipulators



The vibration free column and boom can be used for positioning the weld head for the automated welding of a variety of work pieces from small pipe to large tanks. Both longitudinal and circumferential welds can be easily automated using additional rollerbeds.

## Cross Slides



Manually or automatically position the weld head to the weld joint independently from the positioning equipment.

## Cladding Systems



Use our equipment and process know how for a wide variety of applications.

## Positioners



Work-pieces can always be placed in the most convenient working position.

## Rollerbeds / Idlers



Position the work piece with accuracy or rotation at a constant speed depending on the application.

**Do you want to find out more about Hard Automation?**

**Go to our website!**







# STRIP CLADDING

# Strip Cladding Processes

## Introduction

Cladding is a fundamental process in the Fabrication industry and is applied across the whole spectrum of applications – from the nuclear, oil and gas industries to petrochemicals and steelmaking. Cladding is required on the process side of high pressure Critical Process Plant Equipment (CPE) to provide corrosion resistance against highly severe corrosive service fluid or to increase wear resistance of a component being subjected to heavy wear and tear applications e.g. continuous casting rollers in Steel mills. While CMn substrates, low alloy steels and other materials provide strength and other physical properties, cladding provides the desired corrosion and wear resistance. The result is extraordinary flexibility and cost savings.

There are many ways to apply this corrosion resistant layer – either by using roll-bonded or explosive bonded clad plates or by applying our more flexible weld cladding on a CMn or low alloy steel base material.

## Cladding Processes

While most of the existing arc and electro slag welding processes can be utilized for weld cladding, strip cladding with submerged arc and electro slag welding process are the most attractive choices for applications that require large surface area coverage due to their substantially higher deposition and surface area coverage rates.

# Welding Heads, Accessories and Controller

## Cladding Head

- In-house designed cladding heads for wide range of strip widths (15 to 120 mm)
- Water-cooled and robust modular design
- Power cables can be added as required
- Easily oriented for desired welding direction
- Specifically designed for use in H-ESC\* applications involving simultaneous feeding of strip, flux and hot wire

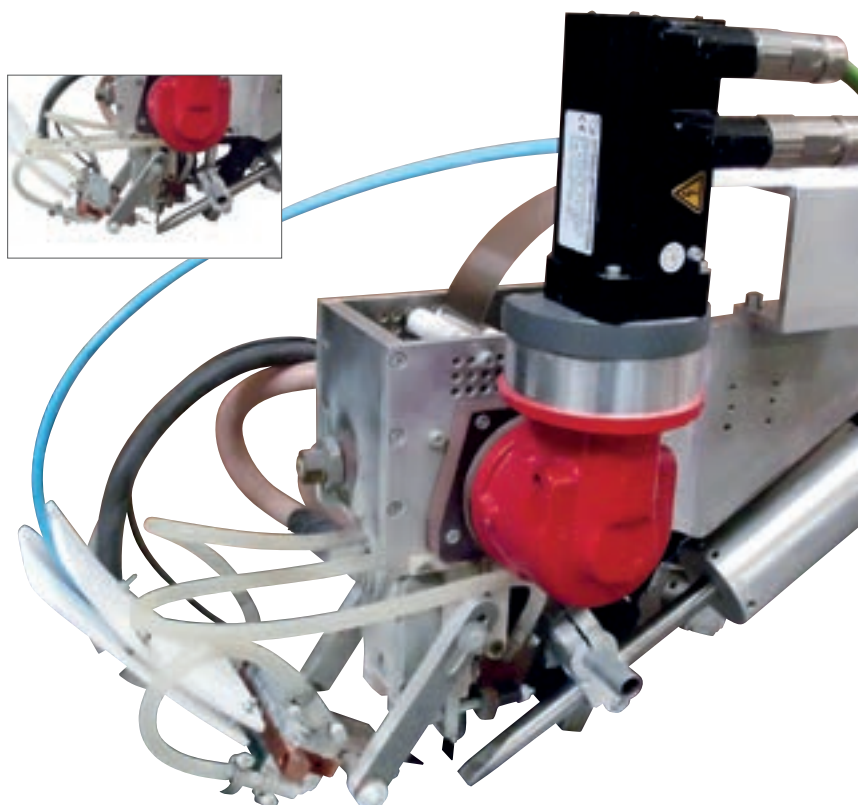


## Hot Wire Feeding Mechanism

- For H-ESC\*, multiple hot metal cored wires are fed to the molten weld pool to achieve final chemistry in single layer with increased productivity
- Hot wire feeding mechanism uses modified Idealarc® DC 1000 or Power Wave® AC/DC 1000 SD power sources.

## Magnetic Steering Devices

- Neutralises effect of strong electromagnetic pull generated by high welding current, enabling weld bead to spread wider with smoother overlap and edge profile
- Digitally controlled magnetic steering devices for Electro Slag – Conventional and H-ESC\* with strip size  $\geq 60$  mm
- Air-cooled, and field poles can be changed between North and South quickly
- Current range of up to 15A





# Welding Power Sources and Strip Feeding Device

Lincoln Idealarc® DC 1000 and 1500 power sources along with NA-5 or NA-3 strip feeding head and controller are the most widely used combinations across the world for conventional strip cladding.

Multiple power sources can easily be connected in parallel to generate welding currents of up to 3000 Amp or more.

Set of modified new generation inverter-based Power Wave® AC/DC 1000 SD or Modified Idealarc® DC 1000 power sources are connected in parallel for H-ESC\* applications in conjunction with 'Hybrid 3D Z5' control system. Same combinations can now as well be used for conventional strip cladding.

**\* Patent Pending**

## Features

- The most widely used power sources, controllers and strip feeders in the world.
- Can easily be combined in parallel to supply a current of 3 000 Amp or more.
- Energy saving while using Inverter based power sources.



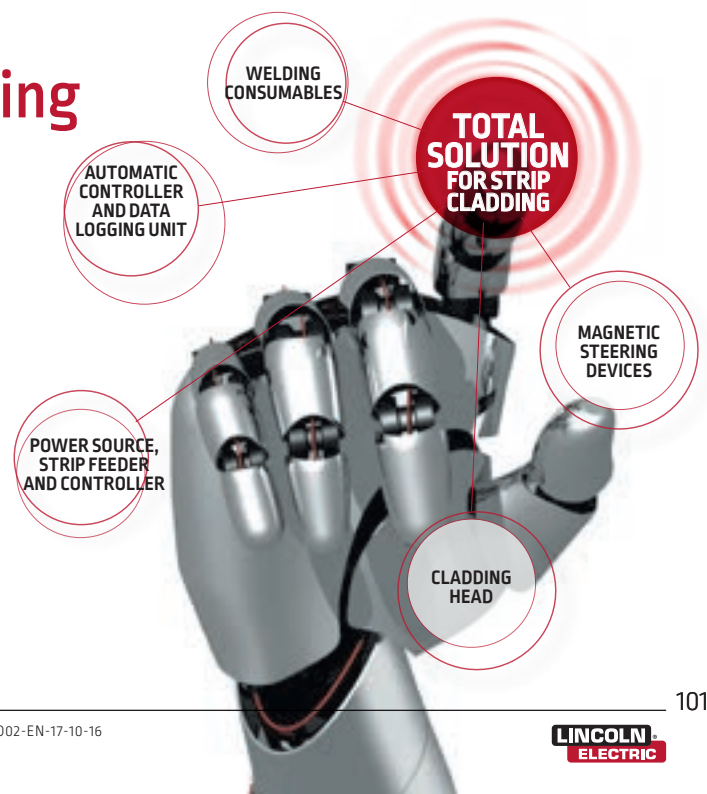
# Total Solution for Strip Cladding

The most important key to the success of Strip cladding process is to have the right combination of:

- Welding Consumables i.e. Strip, Flux and Wire (where applicable)
- Cladding Head
- Magnetic Steering Devices
- Welding Power Sources and Strip Feeding Device
- Hot Wire Feeding Mechanism
- Automatic Welding Control System

If even one of these key elements is absent, the process is likely to fail in achieving its desired output.

Lincoln Electric is the world leader, as it has top quality solutions and the desired expertise in all the above fields.





# GUNS & TORCHES

Built for Operator Comfort  
Robust Design  
Consistent High Performance Arc



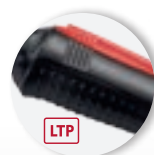
# LINC TORCH™

## Quality makes the difference

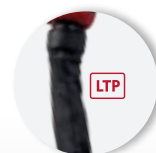
Lincoln Electric presents new TIG torches: **Linc Torch Premium** **LTP** **NEW!**

The Linc Torch Premium (LTP) range is enhancing our current range of TIG torches, providing better performance for the welder's comfort. Designed to meet the challenges of a variety of applications in maintenance, fabrication or construction sites. New torches are offered in both air-cooled and water-cooled version. High quality components and modern design decide about the welding process efficiency and operator's comfort.

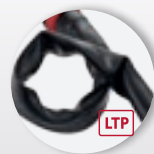
Both LT and LTP torches are made in Europe, according to high quality standards. Their expendables are compatible with the international standard.



**ERGONOMIC GRIP**



**TERMINAL PART IN LEATHER**



**HIGH FLEXIBILITY CABLE**



**ONE BUTTON MODULE + POTENTIOMETER (OPTIONAL)**

## Four configurations



## Range Overview

Cooling	Size	Power rating DC-AC	Length (m)	Torch Models						
				LTP Ergo	LT Ergo	LTP Ergo Flex	LTP Valve Conn. 10-25	LTP Valve Conn. 35-50	LTP Lever	LT Lever
[Air]	17	140A DC 100A AC @ 35%	4	K10529-17-4	K10513-17-4	--	K10529-17-4VS	K10529-17-4V	--	K10513-17-4F
			8	K10529-17-8	K10513-17-8	--	--	K10529-17-8V	K10529-17-8F	--
	26	180A DC 130A AC @ 35%	4	K10529-26-4	K10513-26-4	K10529-26-4X	--	K10529-26-4V	--	K10513-26-4F
			8	K10529-26-8	K10513-26-8	K10529-26-8X	--	K10529-26-8V	K10529-26-8F	--
			12	K10529-26-12	--	--	--	--	--	--
	[Water]	20	220A DC 165A AC @ 100%	4	K10529-20-4	--	--	--	--	--
8				K10529-20-8	--	--	--	--	K10529-20-8F	--
18		320A DC 230A AC @ 100%	4	K10529-18-4	K10513-18-4	K10529-18-4X	--	--	--	K10513-18-4F
			8	K10529-18-8	K10513-18-8	K10529-18-8X	--	--	K10529-18-8F	--
18SC		400A DC 280A AC @ 100%	8	K10529-18SC-8	--	--	--	--	--	--

"F" model torches feature a lever grip

"V" model torches have a gas valve for use with power sources without built-in solenoid valve

"X" model torches feature a flexible head for greater comfort and improved access to tight spaces

LTP 17 G / LT 17 G

STANDARD RANGE

- LT 17 G 4M Ergo K10513-17-4
- LT 17 G 8M Ergo K10513-17-8
- LT 17 G 4M Lever K10513-17-4F

PREMIUM RANGE

- LTP 17 G 4M Ergo K10529-17-4
- LTP 17 G 8M Ergo K10529-17-8
- LTP 17 G 4M Valve Conn. 10-25 K10529-17-4VS
- LTP 17 G 4M Valve Conn. 35-50 K10529-17-4V
- LTP 17 G 8M Valve Conn. 35-50 K10529-17-8V
- LTP 17 G 8M Lever K10529-17-8F



Air cooled

140A DC  
100A AC @ 35%



**LTP**  
PREMIUM

LTP 17 G  
Ergo

CAP

Short: KP10509-1  
57Y04

Medium: KP10509-2  
57Y05

Long: KP10509-3  
57Y02

O RING  
KP10509-4

INSULATOR  
KP10511-1  
18CG

COLLET  
KP10503-size

Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10503-10	10N22
1.6	KP10503-16	10N23
2.4	<b>KP10503-24</b>	<b>10N24</b>
3.2	KP10503-32	10N25
4.0	KP10503-40	54N20

ADAPTOR  
(ONLY NEEDED FOR GAS LENS)  
KP10511-2  
54N01

Φ (mm)	Lincoln Part.n.	Int. Part.n.	Φ (mm)	Lincoln Part.n.	Int. Part.n.
6.5	KP10514-4	10N50	8.0	KP10514-5	10N49
8.0	KP10514-5	10N49	9.5	<b>KP10514-6</b>	<b>10N48</b>
9.5	<b>KP10514-6</b>	<b>10N48</b>	11.0	KP10514-7	10N47
1.0	KP10505-10	10N30	12.5	KP10514-8	10N46
1.6	KP10505-16	10N31	16.0	KP10514-10	10N45
2.4	<b>KP10505-24</b>	<b>10N32</b>	19.0	KP10514-12	10N44
3.2	KP10505-32	10N28			

COLLET BODY  
KP10505-size

CERAMIC NOZZLE  
KP10514-size

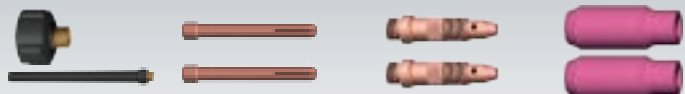
Φ (mm)	Lincoln Part.n.	Int. Part.n.	Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10507-10	45V24	6.5	KP10515-4	54N18
1.6	KP10507-16	45V25	8.0	KP10515-5	54N17
2.4	KP10507-24	45V26	9.5	KP10515-6	54N16
3.2	KP10507-32	45V27	11.0	KP10515-7	54N15
4.0	KP10507-40	45V28	12.5	KP10515-8	54N14
			175	KP10515-12	54N19

GAS LENS  
KP10507-size

CERAMIC NOZZLE  
KP10515-size



Accessory Kits:



KP10516-11: Short & Long Cap, Collet & Collet Body 1.6mm & 2.4mm, Ceramic Nozzles 6.5mm & 11mm

KP10516-12: Short & Long Cap, Collet & Collet Body 2.4mm & 3.2mm, Ceramic Nozzles 9.5mm & 12.5mm

All the expendables are sold in packs of 10 pcs.

The part numbers in **bold** are the ones which are standard in the torch.



## LTP 26 G / LT 26 G


## STANDARD RANGE

LT 26 G 4M	<b>Ergo</b>	K10513-26-4
LT 26 G 8M	<b>Ergo</b>	K10513-26-8
LT 26 G 4M	<b>Lever</b>	K10513-26-4F

## PREMIUM RANGE

LTP 26 G 4M	<b>Ergo</b>	K10529-26-4
LTP 26 G 8M	<b>Ergo</b>	K10529-26-8
LTP 26 G 12M	<b>Ergo</b>	K10529-26-12

LTP 26 G 4M	<b>Ergo Flex</b>	K10529-26-4X
LTP 26 G 8M	<b>Ergo Flex</b>	K10529-26-8X
LTP 26 G 4M	<b>Valve Conn. 35-50</b>	K10529-26-4V
LTP 26 G 8M	<b>Valve Conn. 35-50</b>	K10529-26-8V
LTP 26 G 8M	<b>Lever</b>	K10529-26-8F

 Air cooled

# 180A DC 130A AC @ 35%



**LTP 26 G  
Ergo / Flex**

CAP

 Short: KP10509-1  
57Y04

 Medium: KP10509-2  
57Y05

 Long: KP10509-3  
57Y02
O RING  
KP10509-4INSULATOR  
KP10511-1  
18CGCOLLET  
KP10503-size

Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10503-10	10N22
1.6	KP10503-16	10N23
2.4	<b>KP10503-24</b>	<b>10N24</b>
3.2	KP10503-32	10N25
4.0	KP10503-40	54N20

 ADAPTOR  
(ONLY NEEDED FOR GAS LENS)  
KP10511-2  
54N01

Φ (mm)	Lincoln Part.n.	Int. Part.n.	Φ (mm)	Lincoln Part.n.	Int. Part.n.
6.5	KP10514-4	10N50	11.0	KP10514-7	10N47
8.0	KP10514-5	10N49	12.5	KP10514-8	10N46
9.5	<b>KP10514-6</b>	<b>10N48</b>	16.0	KP10514-10	10N45
1.0	KP10505-10	10N30	19.0	KP10514-12	10N44
1.6	KP10505-16	10N31			
2.4	<b>KP10505-24</b>	<b>10N32</b>			
3.2	KP10505-32	10N28			


**COLLET BODY**  
KP10505-size


**CERAMIC NOZZLE**  
KP10514-size

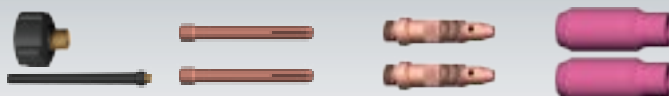

**GAS LENS**  
KP10507-size


**CERAMIC NOZZLE**  
KP10515-size

Φ (mm)	Lincoln Part.n.	Int. Part.n.	Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10507-10	45V24	6.5	KP10515-4	54N18
1.6	KP10507-16	45V25	8.0	KP10515-5	54N17
2.4	KP10507-24	45V26	9.5	KP10515-6	54N16
3.2	KP10507-32	45V27	11.0	KP10515-7	54N15
4.0	KP10507-40	45V28	12.5	KP10515-8	54N14
			17.5	KP10515-12	54N19



## Accessory Kits:


**KP10516-11:** Short & Long Cap, Collet & Collet Body 1.6mm & 2.4mm, Ceramic Nozzles 6.5mm & 11mm

**KP10516-12:** Short & Long Cap, Collet & Collet Body 2.4mm & 3.2mm, Ceramic Nozzles 9.5mm & 12.5mm

 All the expendables are sold **in packs of 10 pcs.**

 The part numbers in **bold** are the ones which are standard in the torch.

LTP 20 W / LT 20 W

STANDARD RANGE

LT 20 W 4M Lever K10513-20-4F

PREMIUM RANGE

LTP 20 W 4M Ergo K10529-20-4  
 LTP 20 W 8M Ergo K10529-20-8  
 LTP 20 W 8M Lever K10529-20-8F



Water cooled

220A DC  
 165A AC @ 100%



**LTP**  
 PREMIUM

LTP 20 W  
 Ergo

- CAP**
- Short: KP10508-1 41V33
  - Medium: KP10508-2 41V35
  - Long: KP10508-3 41V24

- ORING**  
 KP10508-4
- 

- INSULATOR**  
 KP10510-1 598882
- 

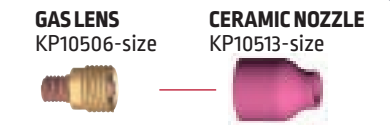
- COLLET**  
 KP10502-size
- 

Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10502-10	13N21
1.6	KP10502-16	13N22
2.4	<b>KP10502-24</b>	<b>13N23</b>
3.2	KP10502-32	13N24

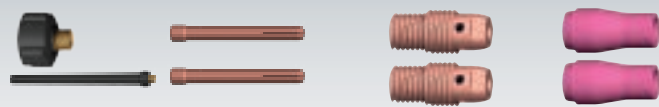
Φ (mm)	Lincoln Part.n.	Int. Part.n.
6.5	KP10512-4	13N08
8.0	KP10512-5	13N09
9.5	<b>KP10512-6</b>	<b>13N10</b>
11.0	KP10512-7	13N11
12.5	KP10512-8	13N12
16.0	KP10512-10	13N13



Φ (mm)	Lincoln Part.n.	Int. Part.n.	Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10506-10	45V42	6.5	KP10513-4	53N58
1.6	KP10506-16	45V43	8.0	KP10513-5	53N59
2.4	KP10506-24	45V44	9.5	KP10513-6	53N60
3.2	KP10506-32	45V45	11.0	KP10513-7	53N61
			12.5	KP10513-8	53N61S



Accessory Kits:



KP10516-10: Short & Long Cap, Collet & Collet Body 1.6mm & 2.4mm, Ceramic Nozzles 6.5mm & 11mm

All the expendables are sold in packs of 10 pcs.  
 The part numbers in **bold** are the ones which are standard in the torch.



## LTP 18 W / LT 18 W

## STANDARD RANGE

LT 18 W 4M Ergo	K10513-18-4
LT 18 W 8M Ergo	K10513-18-8
LT 18 W 4M Lever	K10513-18-4F

## PREMIUM RANGE

LTP 18W 4M Ergo	K10529-18-4
LTP 18W 8M Ergo	K10529-18-8
LTP 18W 4M Ergo Flex	K10529-18-4X
LTP 18W 8M Ergo Flex	K10529-18-8X
LTP 18W 8M Lever	K10529-18-8F



 Water cooled

320A DC  
230A AC @ 100%



**LTP**  
PREMIUM

CAP

Short: KP10509-1  
57Y04

Medium: KP10509-2  
57Y05

Long: KP10509-3  
57Y02

O RING  
KP10509-4INSULATOR  
KP10511-1  
18CGCOLLET  
KP10503-size

Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10503-10	10N22
1.6	KP10503-16	10N23
2.4	<b>KP10503-24</b>	<b>10N24</b>
3.2	KP10503-32	10N25
4.0	KP10503-40	54N20

ADAPTOR  
(ONLY NEEDED FOR GAS LENS)  
KP10511-2  
54N01

Φ (mm)	Lincoln Part.n.	Int. Part.n.	Φ (mm)	Lincoln Part.n.	Int. Part.n.
6.5	KP10514-4	10N50	8.0	KP10514-5	10N49
8.0	KP10514-5	10N49	9.5	<b>KP10514-6</b>	<b>10N48</b>
9.5	<b>KP10514-6</b>	<b>10N48</b>	11.0	KP10514-7	10N47
1.0	KP10505-10	10N30	12.5	KP10514-8	10N46
1.6	KP10505-16	10N31	16.0	KP10514-10	10N45
2.4	<b>KP10505-24</b>	<b>10N32</b>	19.0	KP10514-12	10N44
3.2	KP10505-32	10N28			

  
COLLET BODY  
KP10505-size

  
CERAMIC NOZZLE  
KP10514-size

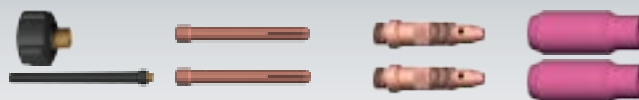
  
GAS LENS  
KP10507-size

  
CERAMIC NOZZLE  
KP10515-size

Φ (mm)	Lincoln Part.n.	Int. Part.n.	Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10507-10	45V24	6.5	KP10515-4	54N18
1.6	KP10507-16	45V25	8.0	KP10515-5	54N17
2.4	KP10507-24	45V26	9.5	KP10515-6	54N16
3.2	KP10507-32	45V27	11.0	KP10515-7	54N15
4.0	KP10507-40	45V28	12.5	KP10515-8	54N14
			17.5	KP10515-12	54N19



## Accessory Kits:



KP10516-11: Short & Long Cap, Collet & Collet Body 1.6mm & 2.4mm, Ceramic Nozzles 6.5mm & 11mm

KP10516-12: Short & Long Cap, Collet & Collet Body 2.4mm & 3.2mm, Ceramic Nozzles 9.5mm & 12.5mm

All the expendables are sold **in packs of 10 pcs.**

The part numbers in **bold** are the ones which are standard in the torch.

LTP 18 W SC

PREMIUM RANGE

LTP 18 W SC Ergo K10529-18SC-8



Water cooled

400A DC  
280A AC @ 100%

**LTP**  
PREMIUM



- CAP**
- Short: KP10509-1  
57Y04
  - Medium: KP10509-2  
57Y05
  - Long: KP10509-3  
57Y02

**O RING**  
KP10509-4

**INSULATOR**  
KP10511-18  
18NG

**COLLET**  
KP10503-size

Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0		
1.6	<b>KP10504-53</b>	<i>NCB-53</i>
2.4		
3.2		
4.0	KP10504-36	<i>NCB-36</i>



**COLLET BODY**  
KP10504-size

**CERAMIC NOZZLE**  
KP10515-size

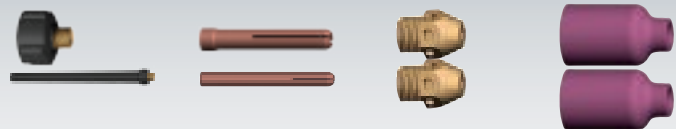


Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10503-10	<i>10N22</i>
1.6	KP10503-16	<i>10N23</i>
2.4	<b>KP10503-24</b>	<b>10N24</b>
3.2	KP10503-32	<i>10N25</i>
4.0	KP10503-20HD	<i>54N20HD</i>

<b>GAS LENS</b> KP10507-size		
Φ (mm)	Lincoln Part.n.	Int. Part.n.
1.0	KP10507-804	<i>18GL04</i>
1.6	KP10507-816	<i>18GL16</i>
2.4	KP10507-832	<i>18GL32</i>
3.2	KP10507-818	<i>18GL18</i>
4.0	KP10507-853	<i>18GL53</i>

Φ (mm)	Lincoln Part.n.	Int. Part.n.
6.5	KP10515-4	<i>54N18</i>
8.0	KP10515-5	<i>54N17</i>
9.5	<b>KP10515-6</b>	<b>54N16</b>
11.0	KP10515-7	<i>54N15</i>
12.5	KP10515-8	<i>54N14</i>
17.5	KP10515-12	<i>54N19</i>

Accessory Kits:



**KP10516-13**: Short & Long Cap, Collet & Collet Body 3.2mm & 4.0mm, Ceramic Nozzles 9.5mm & 12.5mm

All the expendables are sold **in packs of 10 pcs.**  
The part numbers in **bold** are the ones which are standard in the torch.



# Technical Specifications

	LTP	LT
Operating Temperature:	-10°C ~ +55°C	-10°C ~ +40°C
Storage Temperature:	-25°C ~ +55°C	
Relative air humidity:	Up to 90% at 20°C	

**Two ranges:**

- LT Standard • **LTP Premium**

**Four configurations:**

- Ergo • Ergo Flex • Valve • Lever

**Five sizes:**

- 17 • 18 • 18 SC • 20 • 26

		LTP17G	LT17G	LTP18W	LT18W	LTP18W SC	LTP20W	LT20W	LTP26G	LT26G
Power rating	DC	140A		320A		400A	220A		180A	
	AC	100A		230A		280A	165A		130A	
Duty Cycle		35%		100%		100%	100%		35%	
Electrode $\Phi$ (mm)		1.0÷2.4		1.0÷4.0		1.0÷4.0	1.0÷3.2		1.0÷4.0	
Voltage class		L		L		L	L		L	
Welding gas		Argon DIN 32 526/1		Argon DIN 32 526/1		Argon DIN 32 526/1	Argon DIN 32 526/1		Argon DIN 32 526/1	
Gas flow rate (l/min)		7÷15		7÷20		7÷20	8÷22	8÷20	7÷18	
Cooling		Gas		Water		Water	Water		Gas	
Highest temperature cooling medium at entry hose package		-		60°C	50°C	60°C	60°C	50°C	-	
Minimum quantity of cooling flow (l/min)		-		1.0	0.9	1.0	1.0	0.7	-	
Lowest pressure of entry		-		2.5 bar		2.5 bar	2.5 bar		-	
Highest pressure of entry		-		5.0 bar	3.5 bar	5.0 bar	5.0 bar	3.5 bar	-	
Net weight (kg) (4m) (*)		1.82/2.02	2.00/2.10	2.51	2.38/3.53	-	1.71	2.36	2.44/2.54	2.33/2.38
Net weight (kg) (8m) (*)		3.39/3.55	3.95	4.51	3.65	4.56	2.91	-	4.20/4.30	4.12
Net weight (kg) (12m)		-		-		-	-		6.06	-

(\*) Weight depends on the torch version



## Non-Radioactive Tungsten Electrodes

A complete range of tungsten electrodes is proposed as alternative to thoriated, offering superior welding characteristics and avoiding problems with radioactivity.

- Longer lifetime
- Smaller diameter with same welding currents
- Less grinding
- Faster starts
- Better arc stability



TYPE	COLOUR	APPLICATION
WP Pure	Green	Nickel, Bronze, Nickel Alloys, Aluminium, Aluminium Alloys, Magnesium, Magnesium Alloys
WR2 Blended Oxide	Turquoise	Aluminium, Steel, Stainless Steel, Copper and Brass applications
WLa15 Lanthanated	Gold	Aluminium, Aluminium Alloys, Stainless Steel, Copper, Bronze, Titanium
WCe20 Ceriated	Grey	Steel Carbon, Steel, Stainless Steel, Bronze, Copper, Titanium

ITEM n°: L = 150mm	ITEM n°: L = 175mm	Diameter (mm)	Pack
2124905	2124058	1.0	10
2124916	2124069	1.6	10
2124927	2124074	2.0	10
2124938	2124080	2.4	10
2124949	2124091	3.2	10
2124960	2124102	4.0	5
2124410	2124300	1.0	10
2124421	2124311	1.6	10
2124432	2124322	2.0	10
2124443	2124333	2.4	10
2124454	2124344	3.2	10
2124806	2105479	1.0	10
2124817	2105396	1.6	10
2124828	2105417	2.0	10
2124839	2105414	2.4	10
2124850	2105419	3.2	10
-	2105480	4.0	5
2124707	2104797	1.0	10
2124718	2103864	1.6	10
2124729	2103868	2.0	10
2124740	2103865	2.4	10
2124751	2103866	3.2	10
2124762	2103867	4.0	5

# LINC GUN™

## The ultimate MIG guns

- Complete range to support all your welding applications.
- High quality rugged product build according to Lincoln standards.
- Oversized expendables in copper chrome zirconium on LGP series
- Ergonomic hand grip for comfortable welding day in day out.
- Flexible "Ball Joint" for comfortable welding in any position.
- Two metal springs provide optimum cable protection (except LGS 150 G)
- Retractable pins for a consistently reliable connection provided as standard.
- Cable packages use a heat resistant cross link cable for heavy environmental conditions.
- Wearing parts following the industry standard CE IEC 60974-7 and EN50078.



ERGONOMIC GRIP



RETRACTABLE PINS



FLEXIBLE 'BALL JOINT'

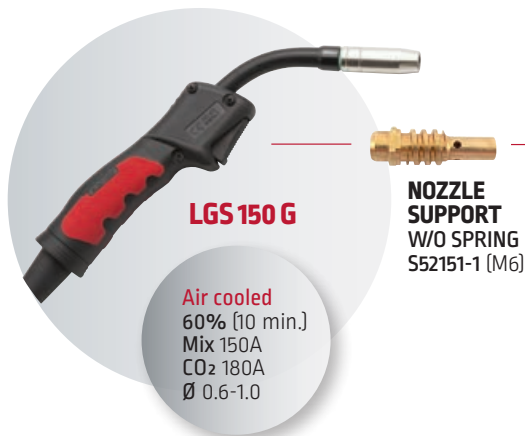


2 SPRINGS

### LGS 150 G

- LGS 150 G 3M K10429-15-3M
- LGS 150 G 4M K10429-15-4M
- LGS 150 G 5M K10429-15-5M

## 150A-180A



LGS 150 G

Air cooled  
60% (10 min.)  
Mix 150A  
CO<sub>2</sub> 180A  
Ø 0.6-1.0

NOZZLE SUPPORT  
W/O SPRING  
S52151-1 (M6)



SPRING  
KP10400-1

CONTACT TIP  
KP10440-size (M6x25)

	Ø	Part.n.
ECu	0.6 mm	KP10440-06
	0.8 mm	<b>KP10440-08</b>
	0.9 mm	KP10440-09
CuCrZr	1.0 mm	KP10440-10
	0.8 mm	KP10440-08C
Al (Ecu)	1.0 mm	KP10440-10C
	0.8 mm	KP10440-08A
	1.0 mm	KP10440-10A

### NOZZLE



KP10461-1 (Ø=12mm)



KP10460-1 (Ø=16mm)



KP10461-6 (Ø=9.5mm)



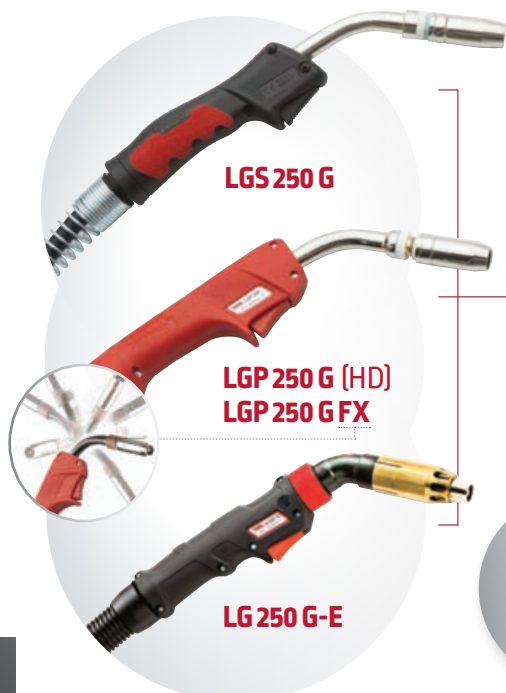
KP10463-1 (Ø=16mm)



KP10468 (Ø=6mm)  
for Innershield

### LGS 250 G / LGP 250 G / LGP 250 G FX (FLEX NECK) / LG 250 G-E (FUME EXTRACTION)

- LGS 250 G 3M K10429-25-3M
- LGS 250 G 4M K10429-25-4M
- LGS 250 G 5M K10429-25-5M
- LGP 250 G 3M K10413-25PHD-3M
- LGP 250 G 4M K10413-25PHD-4M
- LGP 250 G 5M K10413-25PHD-5M
- LG 250 G FX 4M K10413-25FX-4M
- LG 250 G-E 3M K10413-25E-3M
- LG 250 G-E 4M K10413-25E-4M



LGS 250 G

LGP 250 G (HD)  
LGP 250 G FX

LG 250 G-E

Air cooled  
60% (10 min.)  
Mix 200A  
CO<sub>2</sub> 230A  
Ø 0.8-1.2



SPRING  
KP10401-1



TIP HOLDER  
KP10455-8 (M6x35)



CONTACT TIP  
KP10441-size (M6x28)

	Ø	Part.n.
ECu	0.8 mm	KP10441-08
	0.9 mm	KP10441-09
	1.0 mm	<b>KP10441-10</b>
CuCrZr	1.2 mm	KP10441-12
	0.8 mm	KP10441-08C
Al (Ecu)	1.0 mm	KP10441-10C
	1.2 mm	KP10441-12C
	0.8 mm	KP10441-08A
	1.0 mm	KP10441-10A
	1.2 mm	KP10441-12A

### NOZZLE



KP10461-2 (Ø=15mm)  
KP10461-11 (Ø=15mm) (HD)



KP10460-2 (Ø=20mm)



KP10461-7 (Ø=11mm)



KP10462-2 (Ø=14mm)  
KP10466-1 (Ø=11mm)



KP10463-2 (Ø=18mm)



**LGS 240 G**

- LGS 240 G 3M K10429-24-3M
- LGS 240 G 4M K10429-24-4M
- LGS 240 G 5M K10429-24-5M

# 220A-250A



**LGS 240 G**

Air cooled  
60% (10 min.)  
Mix 220A  
CO<sub>2</sub> 250A  
Ø 0.8-1.2

**GAS DIFFUSER**

- KP10404-WT
- KP10404-RD
- KP10404-CR (ceramic)

**TIP HOLDER**  
KP10455-1 (M6x26)



**CONTACT TIP**  
KP10440-size (M6x25)



	Ø	Part.n.
ECu	0.8 mm	KP10440-08
	0.9 mm	KP10440-09
	1.0 mm	<b>KP10440-10</b>
	1.2 mm	KP10440-12
CuCrZr	0.8 mm	KP10440-08C
	1.0 mm	KP10440-10C
	1.2 mm	KP10440-12C
Al (Ecu)	0.8 mm	KP10440-08A
	1.0 mm	KP10440-10A
	1.2 mm	KP10440-12A

**NOZZLE**

- KP10461-4 (Ø=12.5mm)
- KP10461-9 (Ø=10mm)
- KP10460-4 (Ø=17mm)
- KP10463-4 (Ø=17mm)

**LGS 360 G / LGP 360 G / LG 360 G-E (FUME EXTRACTION)**

- LGS 360 G 3M K10429-36-3M
- LGS 360 G 4M K10429-36-4M
- LGS 360 G 5M K10429-36-5M
- LGP 360 G 3M K10413-36PHD-3M
- LGP 360 G 4M K10413-36PHD-4M
- LGP 360 G 5M K10413-36PHD-5M
- LG 360 G-E 3M K10413-36E-3M
- LG 360 G-E 4M K10413-36E-4M
- LG 360 G-E 5M K10413-36E-5M



# 300A-330A



**LGS 360 G**

**LGP 360 G (HD)**

**LG 360 G-E**

Air cooled  
60% (10 min.)  
Mix 300A  
CO<sub>2</sub> 330A  
Ø 0.8-1.6

**GAS DIFFUSER**

- KP10405-WT
- KP10405-CR (ceramic)

**TIP HOLDER**  
KP10456-1 (M8x28)



**CONTACT TIP**  
KP10445-size (M8x30)



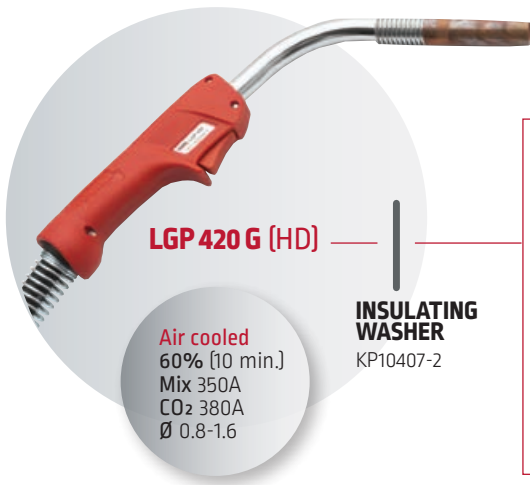
	Ø	Part.n.
ECu	0.8 mm	KP10445-08
	1.0 mm	KP10445-10
	1.2 mm	<b>KP10445-12</b>
	1.6 mm	KP10445-16
CuCrZr	0.8 mm	KP10445-08C
	0.9 mm	KP10445-09C
	1.0 mm	KP10445-10C
	1.2 mm	<b>KP10445-12C (HD)</b>
Al (Ecu)	1.6 mm	KP10445-16C
	0.8 mm	KP10445-08A
	1.0 mm	KP10445-10A
	1.2 mm	KP10445-12A
	1.6 mm	KP10445-16A

**NOZZLE**

- KP10461-3 (Ø=16mm)
- KP10461-8 (Ø=12mm)
- KP10460-3 (Ø=20mm)
- KP10463-3 (Ø=20mm)

**LGP 420 G**

- LGP 420 G 3M K10413-42PHD-3M
- LGP 420 G 4M K10413-42PHD-4M
- LGP 420 G 5M K10413-42PHD-5M



**M10 (standard)**

	Ø	Part.n.
CuCrZr	1.0 mm	KP10449-10C
	1.2 mm	<b>KP10449-12C</b>
	1.6 mm	KP10449-16C
Al (Ecu)	1.0 mm	KP10449-10A
	1.2 mm	KP10449-12A
	1.6 mm	KP10449-16A

**TIP HOLDER**



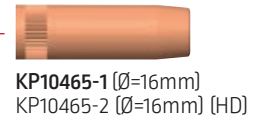
**NOZZLE INSULATOR**



**CONTACT TIP**



**NOZZLE**



**M8 (option)**

**GAS DIFFUSER**



**TIP HOLDER**



**CONTACT TIP**



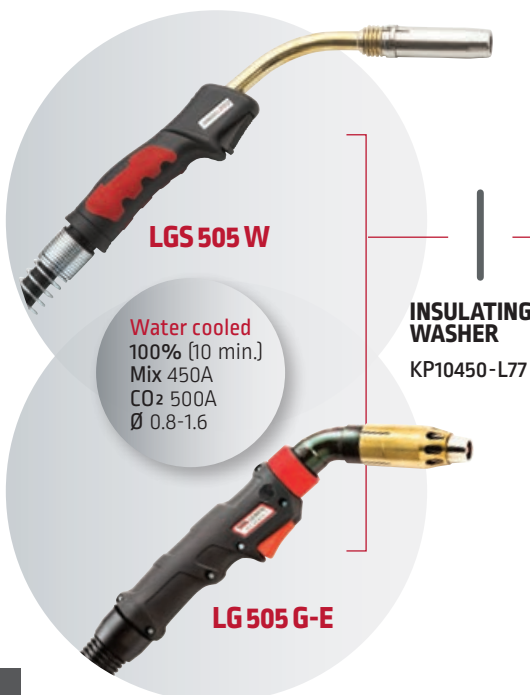
	Ø	Part.n.
CuCrZr (*)	0.8 mm	KP10445-08C
	0.9 mm	KP10445-09C
	1.0 mm	KP10445-10C
	1.2 mm	KP10445-12C
	1.6 mm	KP10445-16C
Al (Ecu)	0.8 mm	KP10445-08A
	1.0 mm	KP10445-10A
	1.2 mm	KP10445-12A
	1.6 mm	KP10445-16A

(\*) Contact Tips in Ecu also available

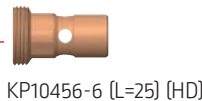
**350A-380A**

**LGS 505 W / LG 505 G-E (FUME EXTRACTION)**

- LGS 505 W 3M K10429-505-3M
- LGS 505 W 4M K10429-505-4M
- LGS 505 W 5M K10429-505-5M
- LG 505 G-E 4M K10413-505E-4M
- LG 505 G-E 5M K10413-505E-5M



**TIP HOLDER**



**GAS DIFFUSER**



**CONTACT TIP**



**NOZZLE**



	Ø	Part.n.
Ecu	0.8 mm	KP10445-08
	1.0 mm	KP10445-10
	1.2 mm	<b>KP10445-12</b>
	1.6 mm	KP10445-16
CuCrZr	0.8 mm	KP10445-08C
	0.9 mm	KP10445-09C
	1.0 mm	KP10445-10C
Al (Ecu)	1.2 mm	KP10445-12C
	1.6 mm	KP10445-16C
	0.8 mm	KP10445-08A
	1.0 mm	KP10445-10A
	1.2 mm	KP10445-12A
	1.6 mm	KP10445-16A



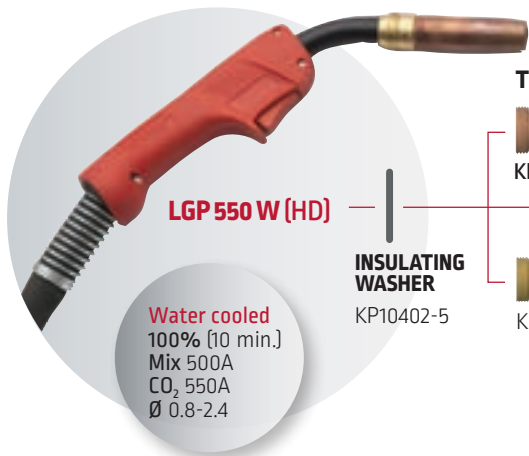
**450A-500A**



## LGP 550 W

LGP 550 W 3M K10413-55PHD-3M  
 LGP 550 W 4M K10413-55PHD-4M  
 LGP 550 W 5M K10413-55PHD-5M

# 500A-550A



**LGP 550 W (HD)**

**Water cooled**  
 100% (10 min.)  
 Mix 500A  
 CO<sub>2</sub> 550A  
 Ø 0.8-2.4

**INSULATING WASHER**  
 KP10402-5

**TIP HOLDER**

KP10456-6 (L=25) (HD)

KP10456-2 (L=25)

**GAS DIFFUSER**

KP10408-WT

KP10408-BR

KP10408-CR (ceramic)

**CONTACT TIP**  
 KP10445-size (M8x30)

	Ø	Part.n.
ECu	0.8 mm	KP10445-08
	1.0 mm	KP10445-10
	1.2 mm	<b>KP10445-12</b>
	1.6 mm	KP10445-16
CuCrZr	0.8 mm	KP10445-08C
	0.9 mm	KP10445-09C
	1.0 mm	KP10445-10C
	1.2 mm	KP10445-12C
Al (Ecu)	1.6 mm	KP10445-16C
	0.8 mm	KP10445-08A
	1.0 mm	KP10445-10A
	1.2 mm	KP10445-12A
	1.6 mm	KP10445-16A

**NOZZLE**



KP10465-1 (Ø=16mm)  
 KP10465-2 (Ø=16mm) (HD)



KP10465-3 (Ø=14mm)

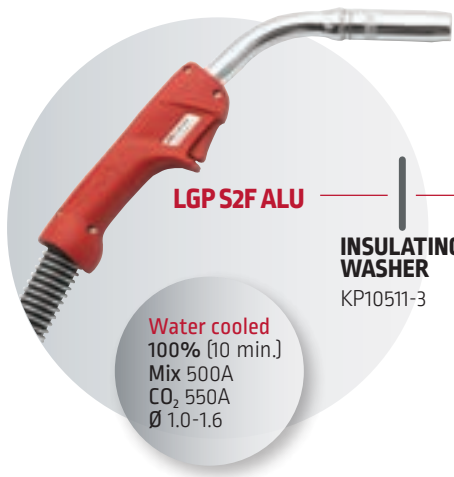


KP10464-1 (Ø=19mm)

## LGP S2F W

LGP S2F ALU K10413-ALUPHD-4M

# 500A-550A



**LGP S2F ALU**

**Water cooled**  
 100% (10 min.)  
 Mix 500A  
 CO<sub>2</sub> 550A  
 Ø 1.0-1.6

**INSULATING WASHER**  
 KP10511-3

**TIP HOLDER**

KP10457-2 (M10x27 HD)

**NOZZLE INSULATOR**

KP10467

**CONTACT TIP**  
 KP10449-size (M10x33 HD)

	Ø	Part.n.
Al (Ecu)	1.0 mm	KP10449-10A
	1.2 mm	<b>KP10449-12A</b>
	1.6 mm	KP10449-16A

**NOZZLE**

KP10465-8 (Ø=16mm) (HD)



## PP 405 WC (PREMIUM GUN)

LGPPW 405 8M K10413-PPW405-8M

# 350A-400A



**LGPPW 405 8M**

**Water cooled**  
 100% (10 min.)  
 Mix 350A  
 CO<sub>2</sub> 400A  
 Ø 0.8-1.6  
 Poti 1x10KΩ  
 Plug 12pins

**TIP HOLDER**

KP10456-6 (L=25) (HD)

KP10456-2 (L=25)

**GAS DIFFUSER**

KP10408-WT

KP10408-BR

KP10408-CR (ceramic)

**CONTACT TIP**  
 KP10445-size (M8x30)

	Ø	Part.n.
ECu	1.0 mm	KP10445-10
	1.2 mm	KP10445-12
CuCrZr	1.0 mm	KP10445-10C
	1.2 mm	KP10445-12C
Al (Ecu)	1.0 mm	KP10445-10A
	1.2 mm	KP10445-12A

**NOZZLE**



KP10461-5 (Ø=16mm)



KP10461-10 (Ø=14mm)



KP10460-5 (Ø=20mm)

Metal transfer (Short Arc STT® / Spray Arc / Pulse)

☉	∅	Short Arc STT®									Spray Arc						Pulse						
		LGS 150 G	LGS 250 G LGP 250 G	LGS 240 G	LGS 360 G LGP 360 G	LGP 420 G	LGS 505 G LGP 550 W	LGP 52F W	LGS 150 G	LGS 250 G LGP 250 G	LGS 240 G	LGS 360 G LGP 360 G	LGP 420 G	LGS 505 G LGP 550 W	LGP 52F W	LGS 150 G	LGS 250 G LGP 250 G	LGS 240 G	LGS 360 G LGP 360 G	LGP 420 G	LGS 505 G LGP 550 W	LGP 52F W	
Steel Solid (80%Ar/20%CO <sub>2</sub> )	0.8	●	●	●	●	●	●		●	●	●	●	●	●	●		●		●	●	●	●	
	1.0	●	●	●	●	●	●					○	●	●	●				●	●	●	●	
	1.2		●	●	●	●	●					○	●	●	●				●	●	●	●	
Steel Cored (80%Ar/20%CO <sub>2</sub> )	1.2				●	●	●					○	●	●	●				●	●	●	●	
	1.4											○	●	●	●					●			
	1.6													●	●								
Stainless (98%Ar/2%CO <sub>2</sub> )	0.8	●	●	●	●	●	●				○	●	●	●	●		○		○	●	●	●	●
	1.0	○	●	●	●	●	●					●	●	●	●				○	●	●	●	●
	1.2		●	●	●	●	●					○	●	●	●				○	●	●	●	●
Aluminium (100% Ar)	1.0											○	○	○	○				○	○	○	○	○
	1.2												●	●	●				○	●	●	●	●
	1.6												●	●	●					●	●	●	●

KEY: ● Excellent ○ Good

Liners

PICTURE	FOR	TYPE	ITEM NUMBER	COLOUR	WIRE ∅	LGS150G	LGS250G LGP250G	LGS240G	LGS360G LGP360G	LGP420G	LGS505W LGP550W	LGP 52FW	PP405WC	
	Steel	Steel liner	KP10410-length	-	0.8-1.2	-	-	-	-	-	●	-	-	
			KP10411-length (*)	-	0.8-1.6	-	-	-	-	-	-	○	-	○
		Steel liner, coated	KP10413-length	blue	0.6-1.0	●	○	○	-	-	-	-	-	-
			KP10414-length	red	0.8-1.2	○	●	●	●	○	-	-	-	-
	ALU, CuSi	PTFE liner	KP10422-length	blue	0.8-1.0	○	○	○	-	-	-	-	-	
			KP10418-length	red	0.8-1.2	○	○	○	○	○	○	-	-	
			KP10420-length	yellow	1.2-1.6	-	-	-	○	○	○	-	-	
		Graphite liner	KP10430-length (***)	black	1.0-1.6	-	-	-	-	-	-	-	●	
		Graphite liner w copper spiral end	KP10419-length	red	0.8-1.2	○	○	○	○	○	○	-	-	-
			KP10421-length	yellow	1.2-1.6	-	-	-	-	○	-	-	-	-
KP10425-length (**)	black		1.0-1.2	-	-	-	-	-	-	-	●	-		
KP10426-length	black	1.4-1.6	-	-	-	-	-	○	-	○	-			

Available in 3M-4M-5M lengths

(\*) Available also in 8M length

(\*\*) Available in 4M length only

(\*\*\*) Available in 8M length only

● Standard in the gun

○ Option



## LC25, LC65 &amp; LC105 (hand) / 65 M &amp; 105M (machine)



TORCH LC25 HAND 3M	PTH-C25A-SL-3MR
TORCH LC65 HAND 7.5M	PTH-061A-CX-7M5A
TORCH LC65 HAND 15M	PTH-061A-CX-15MA
TORCH LC65M MACHINE 7.5M	PTM-061A-CX-7M5A
TORCH LC65M MACHINE 15M	PTM-061A-CX-15MA
TORCH LC105 HAND 7.5M	PTH-101A-CX-7M5A
TORCH LC105 HAND 15M	PTH-101A-CX-15MA
TORCH LC105M MACHINE 7.5M	PTM-101A-CX-7M5A
TORCH LC105M MACHINE 15M	PTM-101A-CX-15MA



Torch	Cooling	Flow rate	Duty cycle @ 60% (10 min 40C <sup>o</sup> )	Thickness (mm)
LC25 (hand)	Air	min. 96 l/min @ 5.0 bar	25A	10 mm (mild steel) 12 mm (severance)
LC 105 (hand)	Air	min. 280 l/min @ 5.5 bar	100A	40 mm (mild steel)
LC 105M (machine)				45 mm (severance)
LC 65 (hand)	Air	min. 130 l/min @ 5.0 bar	60A	25 mm (mild steel)
LC 65M (machine)				30 mm (severance)

CUTTING ATTACHMENT  
FOR LC25/65/105

W0300699A



## Plasma Consumables

## Extended Plasma Consumables for LC65/105

Special electrodes, tips and shield caps which have been designed to cut in narrow places with plasma torches LC65 and LC105.



## LC65

Extended shield-cap	W03X0893-21A
Extended nozzle 40A	W03X0893-40A
Extended nozzle 60A	W03X0893-54A
Extended electrode	W03X0893-53A

## LC105

Extended shield-cap	W03X0893-74A
Extended nozzle 40A	W03X0893-58A
Extended nozzle 60A	W03X0893-59A
Extended nozzle 80A	W03X0893-72A
Extended nozzle 100A	W03X0893-73A
Extended electrode	W03X0893-57A

## LAF1250 Air Filter

Sub-micron filter for compressed air. Designed to remove moisture, oils and sprays particles from air compressors, thus providing clean, free of oil and dry air.

- Better quality of the cut.
- Longer life time of consumables
- Increases time life of the torch itself
- Compatible with any plasma cutting machine and torch
- Filter cartridge easily replaceable
- Useful also for different applications machines (spray painting, pneumatic tools, ...)

DESCRIPTION	VALUE
Degree of filtration:	0.25 microns (0 : 01 pinch)
Maximum operating pressure:	8.5 bar (125 PSI)
Maximum flow rate @ 80%:	1250 l / min (2700 SCFH)
Operating temperature:	-10 +60° C (15-140° F)
Size fittings:	1/4gas (18 NPT)
Dimensions:	Ø132 x 200 mm (Ø 5.2 «x 7”).
Weight:	1.58 kg

## AIR FILTER LAF1250

W88X1456A

## FILTER CARTRIDGE

W8800117R





# WELDING HELMETS

Variable Control for Shade, Sensitivity and Delay  
Light Weight



# lens technology

a clear view to productivity and quality.

# 4C

## A VISION FOR BETTER WELDS

If quality and productivity are your ultimate objectives, your first priority has to be clarity. Simply put, if you can't see the work, you can't do the work. 4C™ technology provides a filtering lens that provides a better, clearer view of the welding puddle.

The 4C™ Lens Technology upgrade to Lincoln Electric's VIKING® welding helmets – including the 1840 series, 2450 series and 3350 series – improves visibility and reduces eye strain by minimizing the traditional lime green coloring in the helmet view screen.

4C™ technology is ideal for a range of industries that use multiple welding processes, including stick, MIG and TIG: fabrication, automotive parts, appliances and more. Whatever the task at hand, 4C™ technology gives you a clear view to productivity and quality.



## A vision for better welds

### Better clarity, less color

Now you can make a good view even better. Upgrading the VIKING 1840, 2450 and 3350 series with 4C™ technology allows the view screens on these helmets to reach a 1-1-1-1 optical clarity rating and the visibility is improved by reducing the lime green tint.

### Wide-screen view

4C™ technology enables you to not only see better but also see more. The large viewing area gives you a full range of vision in relation to the welding area, which enhances operator control and improves weld quality.

### Easy on the eyes

Improved visibility and less eye strain means greater comfort for the welder. This combined with an improved view of the weld puddle adds up to better welds.



Previous 1/1/1/2 Optical Clarity



NEW 4C™ 1/1/1/1 Clarity

### 4C™ Technology

1. Clarity – Optical clarity 1/1/1/1
2. Colour – Real Colour View
3. Carat – Light Weight ADF
4. Cut – Even Shade From Any Angle

# Viking™ – 3350 Series

## Defining A New Gold Standard in Welding Helmets

The VIKING 3350, our top-of-the-line helmet series, provides the best optical clarity available in a welding helmet today and the largest viewing area in its class. The 3350 Series offers a pivot style headgear designed for greater comfort and optimal fit.

### Features

- Perfect 1/1/1 optical clarity rating (EN379)
- Continuously variable 5-13 shade with internal control
- Continuously variable sensitivity and delay
- Grind mode
- 95 x 85 mm view size: Largest in the VIKING line
- Large (133 x 114 mm) cartridge size
- 4 arc sensors
- Solar cells with a replaceable lithium battery
- Magnifying "cheater" lens capability
- New pivot style headgear

**Processes**

- Stick
- TIG, Pulsed TIG
- MIG, Pulsed MIG
- Flux-Cored
- Gouging
- Grinding

**Order**

- K3034-3-CE Viking™ Helmet 3350 Black
- K3100-3-CE Viking™ Helmet 3350 Motorhead™
- K3101-3-CE Viking™ Helmet 3350 Mojo™

CE

# Viking™ – 2450 Series

## The Ideal Choice for the Journeyman Fabricator

The VIKING 2450, the latest evolution in our intermediate line of auto-darkening helmet line, provides the best optical clarity. The 2450 Series offers an improved headgear for greater comfort and flexibility.

### Features

- Perfect 1/1/1 optical clarity rating (EN379)
- Continuously variable 5-13 shade with internal control
- Continuously variable sensitivity and delay
- Grind mode
- 97 x 62 mm view size
- Large (133 x 114 mm) cartridge size
- 4 arc sensors
- Solar cells with a replaceable lithium batteries
- Magnifying "cheater" lens capability
- New pivot style headgear

**Processes**

- Stick
- TIG, Pulsed TIG
- MIG, Pulsed MIG
- Flux-Cored
- Gouging
- Grinding

**Order**

- K3028-3-CE Viking™ Helmet 2450 Black
- K3035-3-CE Viking™ Helmet 1840 Street Rod™

CE

# Viking™ – 1840 Series

## Superior Optical Clarity

The VIKING 1840 provides operators with the best optical clarity available in a welding helmet today. External controls allow for quick and easy shade changes. The 1840 Series offers an improved headgear for greater comfort and optimal fit.

### Features

- Perfect 1/1/1 optical clarity rating (EN379)
- Continuously variable 9-13 shade with external control
- Continuously variable sensitivity and delay
- Grind mode
- 96 x 47 mm view size
- Compact DIN 110 x 90 mm cartridge size
- 2 arc sensors
- Solar powered with replaceable lithium battery
- Magnifying "cheater" lens capability
- New pivot style headgear

**Processes**

- Stick
- TIG, Pulsed TIG
- MIG, Pulsed MIG
- Flux-Cored
- Gouging
- Grinding

**Order**

- K3023-3-CE Viking™ Helmet 1840 Black
- K3024-3-CE Viking™ Helmet 1840 Tribal™

CE



# Viking™ – 1740 Series

Make it Your Own: A Great Welding Helmet at a Great Price

There's no shortage of features on our 1740 series helmet. Available in glossy black finish. Decorate your helmet to reflect your own personal style with the complementary decal sheet.

## Features

- 1/1/2 optical class (EN379)
- Continuously variable 9-13 shade with internal control
- Continuously variable sensitivity and delay
- Grind mode
- 96 x 42.5 mm view size
- Compact DINs 110 x 90 mm cartridge size
- 2 arc sensors
- Solar powered with 2 replaceable AAA alkaline batteries
- Magnifying "cheater" lens capable
- Extra cover lenses enclosed – (2) inside and (5) outside
- Complementary decal sheet to decorate the helmet



**VIKING**  
SOLAR POWERED AUTO DARKENING



### Processes

- Stick
- TIG, Pulsed TIG
- MIG, Pulsed MIG
- Flux-Cored
- Gouging
- Grinding

### Order

- K3282-1-CE Viking™ Helmet 1740 Black



# Linc Screen II

Light and Smart

The Auto-darkening Linc Screen® II helmet is designed to combine safety with a variety of features ideal for Stick, TIG, MIG welding as well as plasma cutting.

A large control located on the exterior of the helmet allows easy adjustment of the shade from 9 to 13 DIN. Equipped with two independent arc sensors.

Solar cells – do not require batteries. Ideal for general purpose applications.

## Features

- 1/2/1/2 optical class (EN379)
- Continuously variable 9-13 shade with external control
- 97 x 44 mm view size
- 2 arc sensors
- Solar powered, with non replaceable battery, no On/Off switch
- Lightweight – 496 g
- User-Friendly Design



**Linc Screen**



### Processes

- Stick
- TIG > 10A
- MIG
- Flux-Cored
- Gouging

### Order










- K2953-1-CE Linc Screen II



See clearly NOW

4C™

LENS TECHNOLOGY

	Linc Screen II	1740 Series	1840 Series	2450 Series	3350 Series
Lens Switching Speed (sec)	1/10,000	1/25,000	1/25,000	1/25,000	1/25,000
Variable Shade/Control	9-13 External	9-13 Internal	9-13 External	5-13 Internal	5-13 Internal
Magnifying "Cheater" Capable Lens	-	Yes	Yes	Yes	Yes
Grind Mode Shade/Control	-	DIN4/Internal	DIN4/External	DIN3.5/Internal	DIN3.5/Internal
Light Sensitivity Control	-	Continuous	Continuous	Continuous	Continuous
Delay Control Dark to Light (sec)	0,70 Fixed	0.1+1 Fully Adjustable	0.1+1 Fully Adjustable	0.1+1 Fully Adjustable	0.1+1 Fully Adjustable
Arc Sensors	2	2	2	4	4
TIG Amp Rating	> 10A AC/DC	> 5A AC/DC	≥ 2A AC/DC	≥ 2 AC/DC	≥ 2A AC/DC
Cartridge Size (mm)	110x90	110x90	110x90	114x133	114x133
View Size (mm)	97x44	96 x 42.5	96x47	97x62	95x85
Temperature Range	Operating: -5°C + 55°C Storage: -20°C - +70°C	Operating: -10°C - +55°C Storage: -20°C - +70°C	Operating: -10°C - +55°C Storage: -20°C - +70°C	Operating: -10°C - +55°C Storage: -20°C - +70°C	Operating: -10°C - +55°C Storage: -20°C - +70°C
Weight (g)	496	528	532	595	595
Optical Clarity	1/2/1/2	1/1/1/2	1/1/1/1	1/1/1/1	1/1/1/1
Head Gear	Standard LS	Standard Viking	Pivot	Pivot	Pivot
Battery Type	Solar cells no battery required	2AAA Alkaline	1 CR 2450 Battery	2 CR 2450 Batteries	1 CR 2450 Battery
					
	Linc Screen II K2953-1-CE	Black K3282-1-CE	Black K3023-3-CE	Black K3028-3-CE	Black K3034-3-CE
					
			Tribal K3024-3-CE	Street Rod® K3035-3-CE	Motorhead® K3100-3-CE
					
					Mojo® K3101-3-CE





**Normal**  
96 x 47 mm



**Bigger**  
97 x 62 mm



**Biggest**  
95 x 85 mm

# VIEW SIZE

## Replacement parts

Part Number	Description	Dimensions	Qty/pk	Linc Screen II	1740 Series	1840 Series	2450 Series	3350 Series
KP3046-100	CHEATER LENS 1.00 MAG	51 x 108 mm FRAME, 1.0 MAG	1		●	●	●	●
KP3046-125	CHEATER LENS 1.25 MAG	51 x 108 mm FRAME, 1.25 MAG	1		●	●	●	●
KP3046-150	CHEATER LENS 1.50 MAG	51 x 108 mm FRAME, 1.5 MAG	1		●	●	●	●
KP3046-175	CHEATER LENS 1.75 MAG	51 x 108 mm FRAME, 1.75 MAG	1		●	●	●	●
KP3046-200	CHEATER LENS 2.00 MAG	51 x 108 mm FRAME, 2.0 MAG	1		●	●	●	●
KP3046-225	CHEATER LENS 2.25 MAG	51 x 108 mm FRAME, 2.25 MAG	1		●	●	●	●
KP3046-250	CHEATER LENS 2.50 MAG	51 x 108 mm FRAME, 2.5 MAG	1		●	●	●	●
KP3043-1	1740 1840 OUTSIDE CLEAR COVER LENS	114 x 100 x 1.5 mm	5		●	●		
KP3283-1	1740 INSIDE CLEAR LENS	95.9 x 47.2 x 1.0 mm	5		●			
KP2897-1	1840 INSIDE CLEAR COVER LENS	96 x 51.6 x 1.0 mm	5			●		
KP2898-1	2450 3350 OUTSIDE CLEAR COVER LENS	114 x 133 x 1.0 mm	5				●	●
KP2931-1	2450 INSIDE CLEAR COVER LENS	98.5 x 66.5 x 1.0 mm	5				●	
KP3044-1	3350 INSIDE CLEAR COVER LENS	94.7 x 89.7 x 1.0 mm	5					●
KP3323-1-CE	LS2 COVER LENS REPLACEMENT KIT (2 OUTSIDE 2 INSIDE)	N/A	2 + 2	●				
KP2930-1	SWEATBAND	N/A	2		●	●	●	●
KP3324-1-SB	SWEATBAND	N/A	1	●				
KP3284-1	1740 ADF CARTRIDGE	DINS 110 X 90 mm	1		●			
KP2853-3	1840 ADF CARTRIDGE	DINS 110 X 90 mm	1			●		
KP2932-3	2450 ADF CARTRIDGE	114 X 133mm	1				●	
KP3045-3	3350 ADF CARTRIDGE	114 X 133mm	1					●
S27978-55	ADF HOLDER	N/A	1		●	●		
S27978-33	ADF HOLDER	N/A	1				●	●
S27978-54	BLACK REPLACEMENT SHELL	N/A	1			●		
KP3282-SH	BLACK REPLACEMENT SHELL	N/A	1		●			
S27978-31	BLACK REPLACEMENT SHELL	N/A	1				●	●
KP3324-1-CE	HEADGEAR REPLACEMENT	N/A	1	●				
KP2929-1	HEADGEAR REPLACEMENT	N/A	1		●			
KP3908-1	HEADGEAR REPLACEMENT (PIVOT TYPE)	N/A	1		●	●	●	●
S27978-58	OUTSIDE COVER LENS SEAL	N/A	1		●	●		
S27978-32	OUTSIDE COVER LENS SEAL	N/A	1				●	●



## WELDING GEAR

Lincoln Electric offers personal protection clothing including welding helmets, gloves, jackets.

Whether you weld for a living or you're an occasional welder, we have the right welding safety gear for you.



## MIG/STICK WELDING GLOVES

These welding gloves are constructed with heat and flame resistant split leather. Kevlar® stitching extends service life.

Conforms to EN12477 standards.

Size: One size fits all

Order: 2105730



Hand Sizing for Gloves	Label Size	Hand Size	Measurement
	S	7 1/2	190
	M	8 1/2	216
	L	9	229
	XL	9 1/2	241

## TRADITIONAL MIG/STICK WELDING GLOVES

These general purpose gloves are constructed with heat and flame resistant split cowhide for all types of welding. Inside, the gloves feature a 100% soft sweat absorbent cotton lining for added comfort and heat resistance. Kevlar® stitching and welted seams offer added durability and thumb pads in high wear areas extend the work life of the glove.

Conforms to EN12477 standards.

Size: One size fits all

Order: K2979-ALL-CE



## PREMIUM LEATHER MIG/STICK WELDING GLOVES

Together, smooth high dexterity grain leather and durable side split cowhide deliver superior comfort and performance. A lined interior and padded palm maximize comfort. The dual lining system extends life in high wear areas. Kevlar® thread provides heat resistance and added seam strength. Forearm coverage is extended for extra spatter protection.

Conforms to EN12477 standards.

Size: M, L, XL

Order: K2980-M-CE, K2980-L-CE, K2980-XL-CE



## LEATHER TIG WELDING GLOVES

Our supple goat skin leather provides the right fit, sensitive feel and durable construction that precise TIG welding demands.

The straight thumb design features welted seams and tough Kevlar® stitching to extend service life.

Conforms to EN12477 standards.

Size: M, L, XL

Order: K2981-M-CE, K2981-L-CE, K2981-XL-CE



## FULL LEATHER STEELWORKER® GLOVES

For fabrication work or light welding. Top grain cowhide leather delivers excellent fit and dexterity while the goat skin back allows the glove to breathe. The palm is padded for comfort and the hook and loop soft rubber tabbed wrist closure with non-constricting elastic band ensures a snug, comfortable fit.

Conforms to EN388 standards.

Size: S, M, L, XL,

Order: K2977-S-CE, K2977-M-CE, K2977-L-CE, K2977-XL-CE



## SHADOW™ GRAIN LEATHER-SLEEVED WELDING JACKET

Choose our full grain leather sleeve model with a flame retardant 100% cotton chest for added comfort and dexterity when MIG or stick welding. The flip up collar is secured with adjustable hook and loop. The front panel is secured by snaps with an extra flap for full closure.

Conforms to EN11611 standards.



Order Information			
Part Number/ Size	Chest Measurement (cm)	Jacket Sleeve (cm)	Jacket Torso (cm)
K2987-M-CE	113	79	76
K2987-L-CE	123	81	81
K2987-XL-CE	133	84	86
K2987-2XL-CE	144	86	91
K2987-3XL-CE	154	89	96



## HEAVY DUTY LEATHER WELDING JACKET

Our heavy duty side split cowhide leather chest and sleeves provide superior protection for stick welding, while the flame retardant cloth back keeps you cool. As an added measure of spatter protection, the flip up collar is secured by hook and loop while the front jacket closure features a lined flap secured by a series of snaps. An inside pocket protects personal items.

Conforms to EN11611 standards.



Order Information			
Part Number/ Size	Chest Measurement (cm)	Jacket Sleeve (cm)	Jacket Torso (cm)
K2989-M-CE	113	79	76
K2989-L-CE	123	81	81
K2989-XL-CE	133	84	86
K2989-2XL-CE	144	86	91
K2989-3XL-CE	154	89	96



## TRADITIONAL SPLIT LEATHER-SLEEVED WELDING JACKET

Split cowhide sleeves resist spatter and add durability, while 9 oz. 100% flame retardant material on the chest and back keep you cool. This basic jacket features an inside pocket and adjustable snap sleeves.

Conforms to EN11611 standards.



Order Information			
Part Number/ Size	Chest Measurement (cm)	Jacket Sleeve (cm)	Jacket Torso (cm)
K3106-M-CE	113	79	76
K3106-L-CE	123	81	81
K3106-XL-CE	133	84	86
K3106-2XL-CE	144	86	91
K3106-3XL-CE	154	89	96



## TRADITIONAL FR CLOTH WELDING JACKET

100% flame retardant material offers protection for light duty welding. An inside pocket stows personal items. Machine washable.

Conforms to EN11611 standards.



Order Information			
Part Number/ Size	Chest Measurement (cm)	Jacket Sleeve (cm)	Jacket Torso (cm)
K2985-M-CE	113	79	76
K2985-L-CE	123	81	81
K2985-XL-CE	133	84	86
K2985-2XL-CE	144	86	91
K2985-3XL-CE	154	89	96





**FR WELDING LAB COAT**

Ideal for instructors, supervisors and occasional welders. The knee length black 255 gr. 100% flame retardant material coat offers protection for light duty welding. Two hip and one chest pocket stow chalk, grease pens or other items. **Conforms to EN11611 standards.**



Order Information			
Part Number/ Size	Chest Measurement (cm)	Jacket Sleeve (cm)	Jacket Torso (cm)
K3112-M-CE	113	79	114
K3112-L-CE	123	81	114
K3112-XL-CE	133	84	114

**BLACK FR SHIRT**

Add protection with a 255 gr. 100% flame retardant material black shirt. This shirt features two chest pockets with flaps and a pencil holder slot.



Order Information			
Part Number/ Size	Chest Measurement (cm)	Jacket Sleeve (cm)	Jacket Torso (cm)
K3113-M-CE	102-107	79	81
K3113-L-CE	112-117	81	84
K3113-XL-CE	122-127	84	86
K3113-2XL-CE	132-137	86	89
K3113-3XL-CE	142-147	89	91

**SPLIT LEATHER WELDING APRON**

Add to your welding jacket when additional protection is required or use for light welding over clothing. The apron features heavy split cowhide and an adjustable harness system for proper fit and weight displacement. **Conforms to EN11611 standards.**



Size: One size fits all.  
Order: **K3110-ALL-CE**

**SPLIT LEATHER WELDING SLEEVES**

Slip on a pair of welding sleeves for added spatter and heat resistance. These black sleeves are entirely made with cow leather. Elastic cuffs at each end keep spatter out and hold the sleeves in position. **Conforms to EN11611 standards.**



Sleeve length: 53 cm  
Order: **K3111-ALL-CE**

**FR DOO RAG & FR WELDING BEANIE**

Let your Lincoln Electric colours show! This premium doo rag, made of 255 gr. flame retardant material, features an athletic mesh lining for fast sweat evaporation. Machine washable. **Conforms to EN11611 standards.**

Size: One size fits all.  
Order: **K2993-ALL-CE**



Protect your head with this authorized Lincoln Electric flame retardant beanie. Machine washable. **Conforms to EN11611 standards.**

Size: One size fits all.  
Order: **K2994-ALL-CE**



LEATHER TROUSERS & FR TROUSERS



KP10571



KP10570

Order Information	
Part Number / Size	Lenght (cm)
KP10571-M	133
KP10571-L	138
KP10571-XL	144
KP10571-2XL	144
KP10571-3XL	148

**Heavy duty leather trousers.**  
Made in split cow leather, metal current isolated snaps and FR cotton straps.  
**Conforms to EN11611 standards.**

Order Information	
Part Number/Size	Lenght (cm)
KP10570-M	113
KP10570-L	116
KP10570-XL	118
KP10570-2XL	123
KP10570-3XL	126

**FR trousers.**  
Practical and comfortable trousers in cotton with flame retardant finish. Knees protection.  
**Conforms to EN11611 standards.**



WELDING OVERALL



Comfortable overall in 100% cotton 360 gr/m<sup>2</sup>, flame retardant finish. Machine washable.  
**Conforms to EN11611 standards.**

Order Information		
Part Number/ Size	Chest Measurement (cm)	Height (cm)
K10515-S	86-84	166-172
K10515-M	95-102	173-178
K10515-L	106-110	179-184
K10515-XL	111-118	185-188
K10515-2XL	119-126	189-192
K10515-3XL	127-134	193-196

WELDING GEAR READY-PAK®

# Everything a welding student or occasional welder needs to get started

Get a tough, abrasion resistant duffle bag filled with everything a welding student or occasional welder needs to get started in school or on the job.  
**Conforms to EN11611, EN379, EN388, EN12477 standards.**

- Lincoln® Industrial Duffle Bag
- VIKING™ Black 1840 Series Auto-Darkening Helmet
- Traditional FR Cloth Jacket (K2985)
- Traditional MIG/Stick Welding Gloves
- Full Leather Steelworker® Gloves
- FR Doo Rag

Order:  
**K3105-M-CE** Traditional Welding Gear READY-PAK® – medium  
**K3105-L-CE** Traditional Welding Gear READY-PAK® – large  
**K3105-XL-CE** Traditional Welding Gear READY-PAK® – extra large  
**K3105-2XL-CE** Traditional Welding Gear READY-PAK® – 2X large

- Lincoln® Industrial Duffle Bag
- VIKING™ Black 1840 Series Auto-Darkening Helmet
- FR welding Overall (K10515)
- Traditional MIG/Stick Welding Gloves
- Full Leather Steelworker® Gloves
- FR Doo Rag

Order:  
**K10516-M-CE** Comfort Welding Gear READY-PAK® – medium  
**K10516-L-CE** Comfort Welding Gear READY-PAK® – large  
**K10516-XL-CE** Comfort Welding Gear READY-PAK® – extra large  
**K10516-2XL-CE** Comfort Welding Gear READY-PAK® – 2X large



Shown K3105







# WELDING ACCESSORIES

# Hydroguard™ Bench Rod Ovens

## Outstanding moisture resistance

HydroGuard™ Rod Ovens help protect stick electrodes from moisture pickup, a major contributor to weld cracking and porosity.

The Bench model holds up to 159 kg of stick up to 450 mm in length, enough for multiple operators in almost any fabrication shop.

### Features

- Distributes heat evenly throughout the interior and directs moisture to the adjustable vent at the top of the door.
- Regulate temperature from 38-288° C. Pilot light indicates active heating mode. Housing recesses controls for added protection.
- Remove shelves to use rod oven for pre- or postweld heating of welded parts.
- Regulate interior moisture levels through an adjustable vent on the door.
- A horizontal surface added to the top provides a surface for taking notes, storing documentation or necessary tools.
- Records time and temperature to comply with certain code requirements.



**Key Options**

- **K3148-1 Thermometer Kit** – allows monitoring of actual temperature ranging from 38-260°C. Certified accurate to ±12°C.

Thermometer kit



Removable Shelves – for pre- or post-weld heating of welded parts or MIG wire on metal spools.



Moisture Vent – allows hot, moist air to escape from the chamber.



Adjustable thermostat – 38-288°C range, – pilot confirms when heating elements is on, – recessed controls.



Top mounted shelf – take notes, store documents.

**INPUT**

1 PHASE 50/60 Hz

**OUTPUT**

CC DC

### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Capacity	Chamber Size	Insulation	Temperature Range	Heating Element	Dimensions HxWxD (mm)	Net Weight (kg)
HydroGuard™ Bench 350 Rod Oven	K2942-1	115/120 V/1Ph	159 kg up to 450 mm electrode	Dia. / Depth 457 x 483 mm	5 cm Fiberglass	38-288°C Thermostat control with indicator light ±14°C	Two elements: 1000 W total	749 x 572 x 572	41
	K2942-2*	240/480 V/1Ph							

\* K2942-2 240/480 volt model is shipped without plug





# Hydroguard™ Portable Rod Ovens

## Outstanding moisture resistance for improved weld quality

HydroGuard™ Portable Rod Ovens from Lincoln Electric help you protect your stick electrodes from moisture pickup, a major contributor to weld cracking and porosity.

Protect your rods and drive moisture away. Your welds depend on it.

### Features

- Easy to transport to the job site.
- Makes it easy to extract your stick electrode.
- Preset 149°C temperature.
- Visually confirms operation.
- Removable, one-piece carrying handle.
- Efficiently maintains temperatures.
- Tough powder coat finish.
- Durable steel construction.

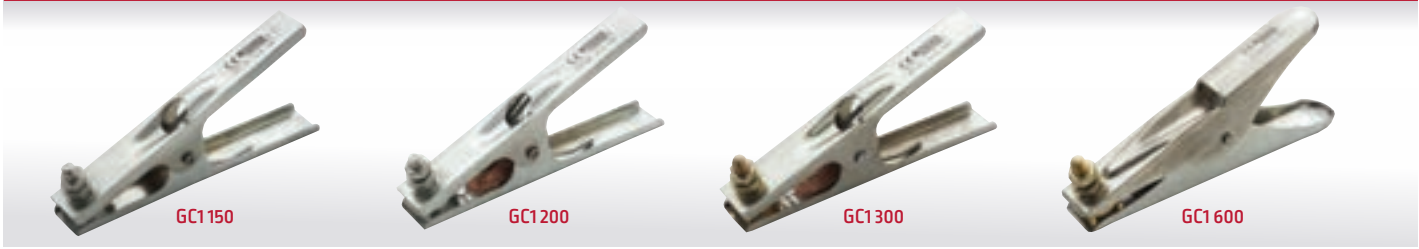


### Technical Specifications

Product	Item Number	Primary Voltage (50-60Hz)	Capacity	Chamber Size	Insulation	Temperature Range	Heating Element	Dimensions HxWxD (mm)	Net Weight (kg)
HydroGuard™ Portable Rod Oven	K2939-1	115/120 V/1Ph	4.5 kg up to 450 mm electrode	Dia. / Depth 73 x 50 cm	3.8 cm Fiberglass	Preset at 149°C Minimum ambient operating temperature is 0°C to maintain a rod oven chamber temperature of 120°C	75 Watt Wire Wrapped	518 x 386 x 630	4.8
	K2939-2	230 V/1Ph							



**GC1 150 / 200 / 300 / 600**



Clamp	Item number	DC@35%	DC@60%	Cable Size (mm <sup>2</sup> )	Weight (g)	Norm
GC1-150	KP10580-1	150	100	10-16	180	EN60974-13
GC1-200	KP10580-2	200	150	16-25	190	
GC1-300	KP10580-3	300	250	35-50	205	
GC1-600	KP10580-4	600	500	95-120	430	

**GC2 250 / 350 / 600**



Clamp	Item number	DC@35%	DC@60%	Cable Size (mm <sup>2</sup> )	Weight (g)	Norm
GC2-250	KP10581-1	250	200	25-35	215	EN60974-13
GC2-350	KP10581-2	300	250	50-70	305	
GC2-600	KP10581-3	600	500	95-120	570	

**GC3 200 / 300 / 500**



Clamp	Item number	DC@35%	DC@60%	Cable Size (mm <sup>2</sup> )	Weight (g)	Norm
GC3-200	KP10582-1	200	150	25-35	190	EN60974-13
GC3-300	KP10582-2	300	250	50-70	350	
GC3-500	KP10582-3	500	400	70-95	550	

**GC4 600 – GC5 600 / 800 / 600R**



Clamp	Item number	DC@35%	DC@60%	Cable Size (mm <sup>2</sup> )	Weight (g)	Norm
GC4-600	KP10583-1	600	500	95-120	865	EN60974-13
GC5-600	KP10584-1	600	500	70-95	370	
GC5-800	KP10584-2	800	600	95-120	1650	
GC5-600R (rotating)	KP10584-3	600	500	95-120	935	



## EH1 300 / 500 – EH2 300 / 500



EH1 300



EH1 500



EH2 300



EH3 400

Electrode Holder	Item number	DC@35%	DC@60%	Max. electrode	Cable Size (mm <sup>2</sup> )	Weight (g)	Norm
EH1-300	KP10575-1	300	200	4-6.3	50-70	470	EN60974-11
EH1-500	KP10575-2	500	400	6.3-10	95-120	600	
EH2-300	KP10576-1	300	200	4-6.3	50-70	430	
EH2-500	KP10576-2	500	400	6.3-10	95-120	580	

## EH3 200 / 300 / 400



EH3 200



EH3 300



EH2 500

Electrode Holder	Item number	DC@35%	DC@60%	Max. electrode	Cable Size (mm <sup>2</sup> )	Weight (g)	Norm
EH3-200	KP10577-1	200	150	2.5-4	25-35	335	EN60974-11
EH3-300	KP10578-1	300	250	4-6.3	50-70	365	
EH3-400	KP10578-2	400	300	5-8	70-95	490	

## EH4 300



EH4 300

Electrode Holder	Item number	DC@35%	DC@60%	Max. electrode	Cable Size (mm <sup>2</sup> )	Weight (g)	Norm
EH4-300	KP10579-1	300	250	4-6.3	50-70	495	EN60974-11



## WELDING KITS

Recommended Current [A]	Cable size [mm <sup>2</sup> ]	Cable length [m]	Electrode Holder	Ground Clamp	ITEM NUMBER
200	25	3	X		E/H-200A-25-3M
400	70	10	X		E/H-400A-70-10M
400	70	5	X		E/H-400A-70-5M
200	35	5		X	GRD-200A-35-5M
200	35	10		X	GRD-200A-35-10M
300	50	5		X	GRD-300A-50-5M
300	50	10		X	GRD-300A-50-10M
400	70	10		X	GRD-400A-70-10M
400	70	15		X	GRD-400A-70-15M
600	95	10		X	GRD-600A-95-10M
120	10	5	X	X	KIT-120A-10-5M
140	16	3	X	X	KIT-140A-16-3M
140	25	5	X	X	KIT-140A-25-5M
200	25	3	X	X	KIT-200A-25-3M
200	35	5	X	X	KIT-200A-35-5M
250	25	3	X	X	KIT-250A-25-3M
250	35	5	X	X	KIT-250A-35-5M
300	50	5	X	X	KIT-300A-50-5M
400	70	5	X	X	KIT-400A-70-5M



## Chemicals

## LINC SPRAY ECO

## ANTISPATTER SPRAY

Lincoln antispatter spray is formulated to avoid the adhesion of fused metal on the pieces to be weld or on the nozzle of the torch.

*Ecological*

*CFC Free*

*Water based*

*Linc Spray Eco*

*Antispatter spray – Western Europe*

Item n°: KP10565-W

- Packaging: can 400 ml
- Conditioning: 12 cans/box

*Linc Spray Eco*

*Antispatter spray – Eastern Europe*

Item n°: KP10565-E

- Packaging: can 400 ml
- Conditioning: 12 cans/box

## PRACTICAL

- Ready to use (it's a spray can)
- No silicone to be removed (but the antispatter features are the same as a silicone spray)
- No need to clean it before painting

## SAFE

- Not flammable
- Chlorinated solvent free
- Not toxic; not harmful; not irritant
- No need to clean it before painting



## ACOROX COOLANT

## ACOROX COOLANT

Special anti-corrosive fluid for cooling systems of welding machines.

## FEATURES

- Effective to -26°C
- Do not dilute

Item n°: K10420-1

- Packaging: can 5 liters
- Conditioning: 2 cans/box





## BRUSHES

**Stainless steel Welding Wire Brush**  
3 x 7 Row

Item n°: KH580

**Top Features**

- Handy toothbrush style
- Light cleaning on stainless steel
- For confined or hard to reach areas
- Length: 20 cm
- Brush dim: 8x40 mm

**Process:** Stainless Steel & Titanium Welding**Stainless Steel Welding Wire Brush**  
2 x 9 Row

Item n°: KH581

**Top Features**

- Slight curve in the handle improves grip
- General light cleaning on stainless steel
- Length: 22 cm
- Brush dim: 10x66 mm

**Process:** Stainless Steel & Titanium Welding**Brass Welding Wire Brush**  
3 x 7 Row

Item n°: KH582

**Top Features**

- Compact toothbrush style
- Light cleaning on aluminium
- For confined or hard to reach areas
- Brass bristles are easy on aluminium surfaces
- Length: 20 cm
- Brush dim: 8x40 mm

**Process:** Aluminium Welding**Brass Welding Wire Brush**  
2 x 9 Row

Item n°: KH583

**Top Features**

- Curved handle improves grip
- General light cleaning on aluminium
- Brass bristles gently remove oxide layer on aluminium
- Length: 22 cm
- Brush dim: 10x66 mm

**Process:** Aluminium Welding**Carbon Steel Welding Wire Brush**  
3 x 19 Row

Item n°: KH584

**Top Features**

- Tempered steel bristle pattern
- Efficient general cleaning
- Length: 35 cm
- Brush dim: 18x163 mm

**Process:** Carbon Steel Welding**Carbon Steel Welding Wire Brush**  
4 x 16 Row

Item n°: KH585

**Top Features**

- Tempered steel bristles
- Make fast work of rust, mill scale and paint
- Length: 24 cm
- Brush dim: 20x125 mm

**Process:** Carbon Steel Welding**Stainless Steel Welding Wire Brush**  
3 x 19 Row

Item n°: KH586

**Top Features**

- General purpose
- Long life
- Efficient surface cleaning
- Length: 35 cm
- Brush dim: 18x163 mm

**Process:** Stainless Steel & Titanium Welding**Welding Brush Three Pack**

Item n°: KH590

**Top Features**

- Compact toothbrush style set
- Easy to stow in your bag
- Perfect for small projects
- Includes:
  - brass bristle brush for aluminium,
  - stainless bristle brush for stainless steel
  - a nylon bristle brush
- Length: 18 cm
- Brush dim: 10x38 mm

**Process:** Carbon Steel Welding**Chipping Hammer**

Item n°: KP10587-1

**Top Features**

- Shock reducing spring-type handle
- For cleaning flux and slag off metal
- Tough, forged-alloy steel head with vertical chisel on one hand, long tapered point on other
- Length: 24 cm
- Weight: 315 g

**Inspection Mirror**

Item n°: KP10587-2



## PLIERS

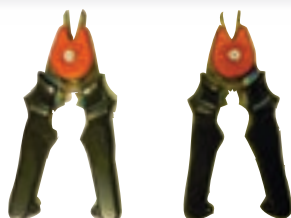
**FIX CO2 Pliers**

size 1, for gas nozzles 12-15mm

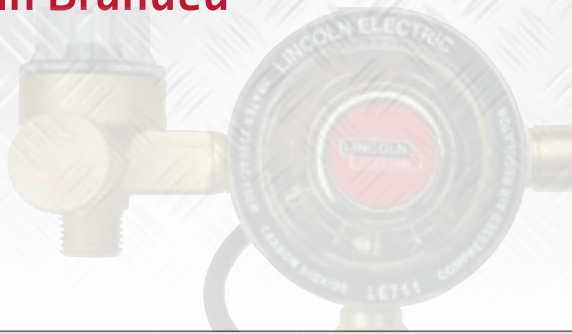
Item n°: KP10520-1

size 2, for gas nozzles 15-18mm

Item n°: KP10520-2



# Gas Regulators Lincoln Branded



## LE601D-L

Flowgauge regulator  
for light duty  
MIG/TIG application



## LE250L

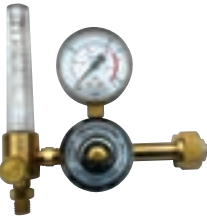
Flowgauge regulator  
for all MIG /TIG application



					MAX INLET PRESSURE [bar]	230	230		
					FLOW [lpm]	0-30	0-30		
					SUPPLY PRESSURE GAUGE [bar]	0-315	0-315		
					FLOW GAUGE [lpm]	0-30	0-30		
					DELIVERY PRESSURE [bar]	-----	-----		
Mainly used in		Cylinder connection thread	Outlet connection	Hose connection	Part Number	Description	Part Number	Description	
GERMANY	Ar - Ar mix	W21,8-14-RH	G1/4"	without	3100481	LE601D30LARC117	3100521	LE250DB30LARC22	
	CD								
BELGIUM	Ar - Ar mix	W21,8-14-RH	G3/8"	for 6 and 8 mm hoses	3100486	LE601D30LARC938	3100382	LE250DB30LARC25	
	CD								
NETHERLANDS	Ar - Ar mix	W24,32-14-RH	G3/8"	for 6 and 8 mm hoses	3100088	LE601D30LAR3124	3100520	LE250DB30LAR3132	
	CD	W21,8-14-RH			3100487	LE601D30LCD3562	3100525	LE250DB30LCD106	
ITALY	Ar - Ar mix	W24,51-14-RH	G3/8"	for 6 and 8 mm hoses	3100477	LE601D30LAR3563	3100517	LE250DB30LAR108	
	CD	W21,7-14-RH			3100488	LE601D30LCD3570	3100526	LE250DB30LCD112	
SPAIN	Ar - Ar mix	W21,8-14-RH	G1/4"	for 5mm hose	3100491*	LE601ED30LARC98	3100516	LE25030LARC575	
	CD								
PORTUGAL	Ar - Ar mix	W21,7-14-RH	G1/4"	for 6 and 8 mm hoses	3100257*	LE601ED30LARC93	3100047	LE25030LARC3001	
	CD								
FRANCE	Ar - Ar mix	W21,8-14-RH	9/16" UNF	for 6 mm hose	3100485	LE601D30LARC500	3100523	LE250DB30LARC643	
	CD								
SWEDEN	Ar - Ar mix	W24,32-14-RH	G3/8"	for 6 and 8 mm hoses	3100478	LE601D30LAR3579	3100519	LE250DB30LAR275	
	CD	W21,8-14-RH			3100479	LE601D30LCD3582	3100528	LE250DB30LCD17	
NORWAY	Ar - Ar mix	W24,32-14-RH	G3/8"	for 6 and 8 mm hoses	3100478	LE601D30LAR3579	3100519	LE250DB30LAR275	
	CD	W21,8-14-RH			3100479	LE601D30LCD3582	3100528	LE250DB30LCD17	
FINLAND	Ar - Ar mix	W24,32-14-RH	G3/8"	for 6 and 8 mm hoses	3100478	LE601D30LAR3579	3100519	LE250DB30LAR275	
	CD	W21,8-14-RH			3100479	LE601D30LCD3582	3100528	LE250DB30LCD17	
DENMARK	Ar - Ar mix	W24,32-14-RH	G3/8"	for 6 and 8 mm hoses	3100478	LE601D30LAR3579	3100519	LE250DB30LAR275	
	CD	W21,8-14-RH			3100479	LE601D30LCD3582	3100528	LE250DB30LCD17	
RUSSIA	Ar - Ar mix	G3/4"-RH	G1/4"	for 6 mm hose	3100482	LE601D30LARC168	3100415	LE250DB30LARC46	
	CD								
CROATIA	Ar - Ar mix	W21,8-14-RH	G3/8"	without	3100483	LE601D30LARC169	3100522	LE250DB30LARC23	
	CD								
CZECH REPUBLIC	Ar - Ar mix	W24,32-14-RH	G1/4"	for 6 mm hose	3100480	LE601D30LAR3589	3100518	LE250DB30LAR109	
	CD	W21,8-14-RH			3100490	LE601D30LCD3590	3100527	LE250DB30LCD164	
SLOVENIA	Ar - Ar mix	W21,8-14-RH	G1/4"	without	3100481	LE601D30LARC117	3100521	LE250DB30LARC22	
	CD								
ESTONIA LITHUANIA LATVIA	Ar - Ar mix (Scandinavian type)	W24,32-14-RH	G3/8"	for 6 and 8 mm hoses	3100478	LE601D30LAR3579	3100519	LE250DB30LAR275	
	CD (Scandinavian type)	W21,8-14-RH			3100479	LE601D30LCD3582	3100528	LE250DB30LCD17	
	Ar - CD (Russian type)	G3/4"-RH			3100484	LE601D30LARC363	3100524	LE250DB30LARC69	

\* side inlet connection



LE250D-F		LE651		LE603		LE711	
Flowmeter regulator for MIG /TIG application, accurate flow measurement		Flowmeter regulator with gas saving feature		Inert gas guard		Flowgauge regulator (electrically heated)	
							
230		300		15		230	
0-30		0-30		-----		0-25	
0-315		0-400		-----		0-315	
0-30		0-30		-----		0-25	
-----		-----		0.6-0.9		-----	
Part Number	Description	Part Number	Description	Part Number	Description	Part Number	Description
3100538	LE250DB30FARC55	3100704	LE65130LARC3564	3001051	LE603Z003	3100624	LE711Z002
3100537	LE250DB30FARC54	3100705	LE65130LARC3567	3002150	LE603Z001	3100623	LE711Z001
3100532	LE250DB30FAR3130	3100709	LE65130LAR3568	3002150	LE603Z001		
3100540	LE250DB30FCD107	3100712	LE65130LCD3569			3100623	LE711Z001
3100530	LE250DB30FAR120	3100701	LE65130LAR3574	3002150	LE603Z001		
3100541	LE250DB30FCD121	3100713	LE65130LCD3575			3100625	LE711Z003
3100529	LE250D30FARC734	3100706	LE65130LARC3576	3001051	LE603Z003	3100626	LE711Z004
3100029	LE250D30FARC103	3100707	LE65130LARC3577	3001051	LE603Z003	3100627	LE711Z005
3100534	LE250DB30FARC163	3100708	LE65130LARC3578	3002088	LE603Z002	3100628	LE711Z006
3100533	LE250DB30FAR50	3100702	LE65130LAR3581	3002150	LE603Z001		
3100542	LE250DB30FCD175	3100714	LE65130LCD3584			3100629	LE711Z007
3100533	LE250DB30FAR50	3100702	LE65130LAR3581	3002150	LE603Z001		
3100542	LE250DB30FCD175	3100714	LE65130LCD3584			3100629	LE711Z007
3100533	LE250DB30FAR50	3100702	LE65130LAR3581	3002150	LE603Z001		
3100542	LE250DB30FCD175	3100714	LE65130LCD3584			3100629	LE711Z007
3100533	LE250DB30FAR50	3100702	LE65130LAR3581	3002150	LE603Z001		
3100542	LE250DB30FCD175	3100714	LE65130LCD3584			3100629	LE711Z007
3100536	LE250DB30FARC49	3100700	LE65130LARC3586	3001051	LE603Z003	3100630	LE711Z008
3100535	LE250DB30FARC20	3100710	LE65130LARC3588	3002150	LE603Z001	3100631	LE711Z009
3100531	LE250DB30FAR301	3100703	LE65130LAR3593	3001051	LE603Z003		
3100543	LE250DB30FCD302	3100715	LE65130LCD3594			3100630	LE711Z008
3100538	LE250DB30FARC55	3100704	LE65130LARC3564	3001051	LE603Z003	3100624	LE711Z002
3100533	LE250DB30FAR50	3100702	LE65130LAR3581	3002150	LE603Z001		
3100542	LE250DB30FCD175	3100714	LE65130LCD3584	3002150	LE603Z001	3100629	LE711Z007
3100539	LE250DB30FARC87	3100711	LE65130LARC3618	3002150	LE603Z001	3100632	LE711Z010

## LE601D-L

### Compact single stage flowgauge regulator

#### Features

- Maximum inlet pressure 230 bar
- 50 mm safety gauge
- Rear inlet connection (side inlet connection for Spain and Portugal)



#### Applications

- Light duty MIG/TIG welding

## LE250L

### Flowgauge regulator

#### Features

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar



#### Applications

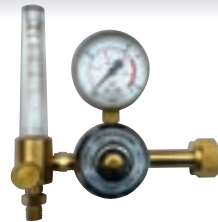
- All MIG/TIG welding applications

## LE250D-F

### Flowgauge regulator

#### Features

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar



#### Applications

- All MIG/TIG welding applications

## LE711

### Electrically heated flowgauge regulator

#### Features

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar



#### Applications

- All MIG/TIG welding applications

## LE651

### Two stage flowmeter regulator

#### Features

- Forged Two Stage flowmeter regulator
- Forged brass body for maximum strength
- Cylinder gas supplied
- Inlet filter to protect against contamination
- Precise gas flow control
- Strong, resistant with good 360° visibility flowmeter made of polycarbonate
- Side entry



#### Applications

- All MIG/TIG welding applications

## LE603

### Inert gas guard

#### Features

- To be connected between your existing flowmeter and hose.
- LE603 Inert Gas Guard is designed to save shielding gases in two ways:
  - by reducing the gas surge when a MIG gun or TIG torch is activated. As they are designed to reduce the pressure held in supply hose, gas waste is reduced when the gun or torch is triggered
  - by delivering a controlled flow rate
- Operators will typically set shielding gas flow rates higher than necessary for a welding operation. Once set by a supervisor, the Inert Gas Guard delivers the precise amount of flow for the operation, eliminating the needless waste of gas.
- Designed to eliminate the pressure surge at the beginning of each weld in MIG/TIG welding, maintains a constant flow and pressure with each weld, permits gas savings over 60%.



#### Applications

- All MIG/TIG welding applications





## Belgium

Lincoln Smitweld Belgium  
Tel: +32 54 33 42 12  
Email: infobe@lincolnelectric.eu  
www.lincolnelectric.nl

## Denmark / Sweden / Norway

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