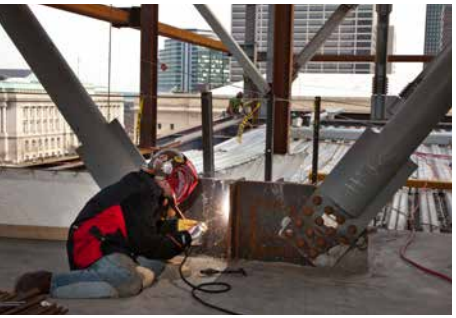
BUILT TO LAST, ENGINEERED TO EXCEL

LINC® i400S

www.lincolnelectric.eu



Processes

- MMA
- Gouging
- TIG lift
- MMA manual & Synergic Pulse
- Premium Cellulosic 6010 Stick capability

Materials

- Steel
- Stainless steel
- Low alloy steel

Applications

- General fabrication
- Heavy fabrication
- Structural
- Transportation
- Chemical processing
- Maintenance and repair
- Shipbuilding
- Offshore
- Pipeline

BUILT TO LAST, ENGINEERED TO EXCEL

The new **LINC® i400S** offers excellent welding processes coupled with high performance, as well as increased productivity and is the next step in industrial welding.

LINC® i400S is designed with the latest energy-saving technology and is ready to work in the most difficult environments due to its unique design.

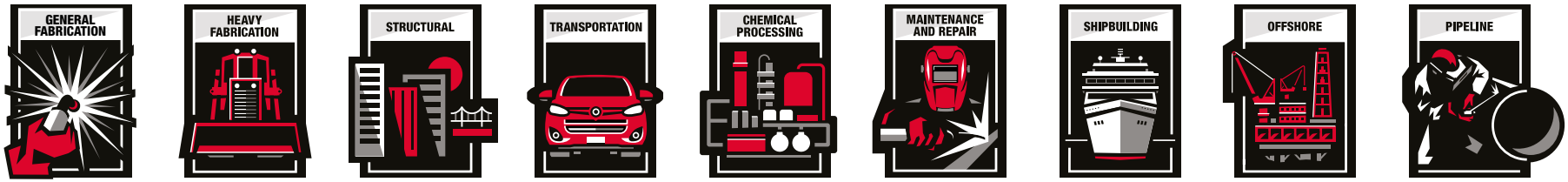
To achieve excellent welding results, LINC® i400S comes complete with in-built communication devices and digital transmission systems, such as USBs, allowing the operator to monitor and track welding operations more easily.

A modular system offering superior mobility to facilitate the most demanding welding applications, within a variety of industry segments.

- Power Sources with 40% duty cycle
- Solid, 4-wheel or 2-wheel carts
- Special 4-wheel cart KIT for paralleling 2 units and doubling output power

Input
400V ±15%,
3-Ph 50/60Hz, generator ready

Output
400A@40% / 360A@60% / 300A@100%
ECO friendly: Idle power 21.3W and efficiency > 89.3%



LINC® i400S - KEY FEATURES

UP TO 800Amps

Up to 800Amps output using dedicated kit paralleling system and two power sources LINC® i400S.

MMA MANUAL & SYNERGIC PULSE

Predefined synergic programs and advanced stick settings simplify operation, ensuring efficiency and ease of use.

MODULAR DESIGN FLEXIBLE CONFIGURATION

A modular system ensures superior mobility, adapting to the most demanding welding applications across industries.

Kit for a cart with two welding machines, allowing a single user to transport both units easily.

INDUSTRIAL GRADE

IP23, 3-year warranty, no limitation.

30 KG LIGHTWEIGHT

Its industrial-grade yet lightweight design enhances portability and ease of use.

POWERFUL AND EFFICIENT PACKAGE

RUGGED RELIABILITY

High duty cycle 400A@40% at 40°C

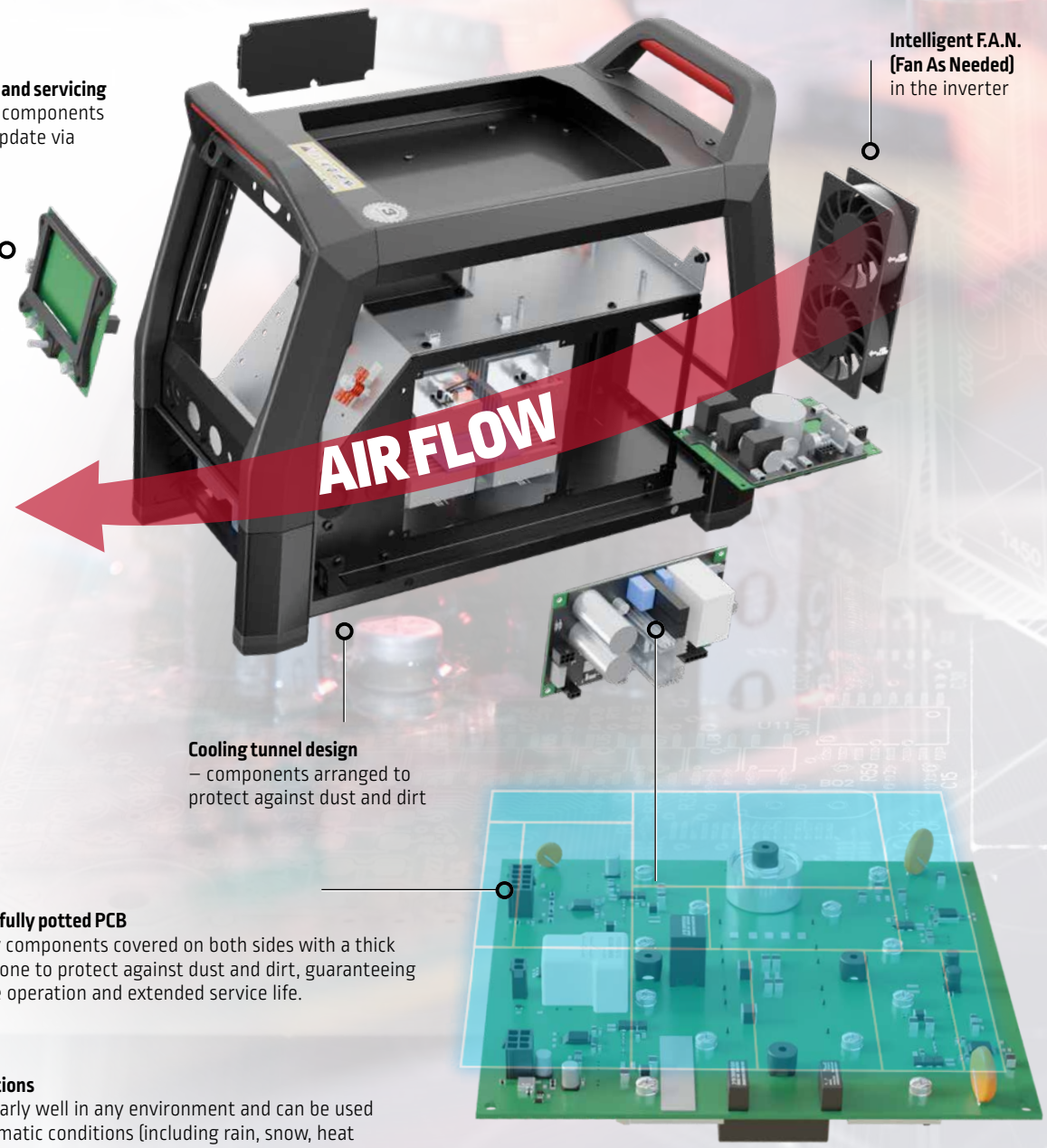
- High production efficiency
- Digital welding current control
- True HD tested – made for harsh environmental conditions

Inverter engine technology – ECO Friendly

- Lower power consumption due to high efficiency – energy cost saving
- Advanced SiC technology transistors further reduce energy consumption
- Generator ready

Lincoln Electric Industrial design – ready to use anywhere

- **Double-sided fully potted PCB**
- Metal construction
- Protection class IP23
- **3 year full parts and labour warranty**



Easy maintenance and servicing
Easy access to all components inside Software update via laptop or USB

Intelligent F.A.N. (Fan As Needed)
in the inverter

Cooling tunnel design
– components arranged to protect against dust and dirt

Double-side fully potted PCB
High quality components covered on both sides with a thick layer of silicone to protect against dust and dirt, guaranteeing trouble-free operation and extended service life.

For all conditions
Fits particularly well in any environment and can be used under all climatic conditions (including rain, snow, heat and dust) with optimal protection against metallic dust.

INNOVATIVE & INTUITIVE INTERFACE

- Two buttons, one control knob for easy navigation
- Icon language for key commands
- Easy process and settings selection
- Locking function / Limits / Memories / Jobs
- Interface available in languages: English, German, French, Polish, Finnish, Spanish, Italian, Russian, Dutch, Romanian, Norwegian, Swedish, Czech, Turkish, Portuguese

New encoders for more precise adjustment

Simple navigation even when using welding gloves

Colour display

USB connectivity

USB CONNECTIVITY

Analysis and quick decision making

- **Transfer settings between machines.**
- **Simple welding data collection on USB** (start time, average current, average voltage, arc time, welding mode/job number, job name).
- **Weld quality data monitoring** (data on TFT user interface screen or CSV file transfer)
- **Software updating**

MODULAR DESIGN, FLEXIBLE CONFIGURATION

LINC® i400S

3 PHASE | 50/60 Hz | CC | DC | GENERATOR READY

Cellulosic

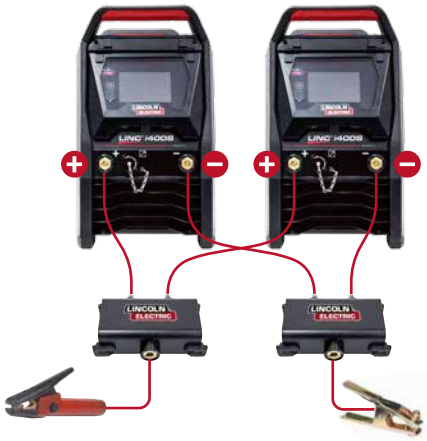
CART 24

2x

CART 4-WHEELS

4x

UP TO 800Amps



Up to 800Amps

- Connect positive outputs from both machines to first connection box.
- Connect negative outputs from both machines to second connection box.
- Connect work lead, electrode holder/ gouging torch to parallel the outputs of the connection boxes.

	Item type	Item description	Item number
1	Power source	LINC® i400S	K14438-1
2	Cart	Cart 24	K14191-1
		Cart 4-wheels	K14298-1
4	Welding cable	Ground cable 400A – 75 mm² – 5 m	GRD-400A-70-5M
5	Option	Foot Amptrol™	K870
6	Option	Remote control	K10095-1-15M
7	Option	Remote control dual channel 15 m	K14443-1-15M
8	Option	Parallel connection box	K14445-1

MODULAR CONCEPT MAKES EVERYDAY WELDERS WORK EASIER

Cart 24 – developed to store all accessories making everyday welding work easier

Practical storage

Helmet rack

TIG lift torch holder

Cable Management System

For easy transportation of the whole welding system, even with a very long connection cable

Holder for foot control pedal

Low gas cylinder entry makes loading very easy

Cart 4-Wheels New Heavy Duty undercarriage

Front UI protection cover keeps your UI safe

Storage for accessories and wear parts

Stable design with robust steel pipe construction

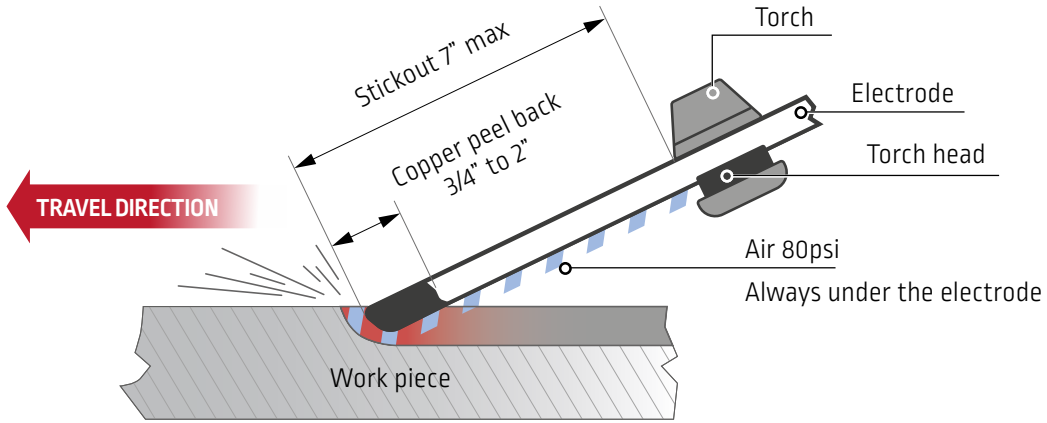
Cable Management System

Rubber bumpers for feet protection

The LINC® i400S can be used for TIG Lift welding, in which case a gas bottle can be connected.

WHAT IS ARC GOUGING?

Air carbon arc gouging is a metal removal process that utilizes the heat generated by a carbon arc. The process requires a carbon/graphite electrode, compressed air, and a standard power source. The intense arc between the tip of the carbon electrode and the metal part cuts and melts the part. The arc is ignited when the tip of the electrode hits the surface of the work piece. Then the molten metal is completely blown off the metal surface by compressed air. The metal is cut or gouged in the direction of the airflow.



HOW IT WORKS

A power supply capable of high voltage is required. The power source must have a constant current output characteristic, otherwise the high voltage current may cause the electrode tip to “burst” when touching the work piece.

A compressed air line up to 100psi/7bars, or a separate bottled gas supply, approximately 35psi/2,5bars is necessary. The electrode is a carbon-graphite rod with a copper coating. Copper coatings reduce electrode erosion. By using the correct electrode diameter required for the width and depth of the gouge, the cut can be precisely controlled and material waste minimized.

WHAT ARE THE ADVANTAGES?

- The carbon arc cutting process can be performed in all directions on the work piece.
- The temperature around the removed material does not reach the maximum because the metal is quickly removed after melting.
- Process usable with almost all common metals.

GOUGING ELECTRODES

- First class metal removal rates.
- Removing defective welds, preparing joints for welding, severing, pad washing, bevelling.
- 16 separate models ranging from 4 x 305 to 19 x 430.
- More consistent melting rate results in uniform, smooth grooves.
- Dense copper coating improves arc stability.
- High mechanical strength for improved durability.
- Constant quality for a safe process.

Process
CAG-A (gouging)
Applications
Removing defective welds, preparing joints for welding, severing, pad washing, beveling

CARBONAIR

Pointed electrodes

Versatile, multi-purpose, round, gouging electrodes (most popular type).

Diameter x length (mm)	Quantity per box	Gross weight per box (kg)	I mini (A)	I max (A)	Air pressure (bars)	Airflow (m3/h)	Reference
4 x 305	100	0.7508	150	200	5.0	10	W000010645
5 x 305	100	1.1582	200	300	5.0	10	W000010443
6.4 x 305	50	0.935	300	400	6.0	10.5	W000010444
8 x 305	50	1.4026	450	550	7.0	12	W000010445
10 x 305	50	1.9154	600	700	8.0	13	W000010446
13 x 305	50	3.4112	900	1100	9.0	14	W000010447

Flat electrodes

Rectangular shape for close tolerance metal removal and/or rectangular grooves production.

Diameter x length (mm)	Quantity per box	Gross weight per box (kg)	I mini (A)	I max (A)	Air pressure (bars)	Airflow (m3/h)	Reference
5 x 15 x 305	50	2.15	500	600	8.0	13	W202010453
5 x 18 x 355	25	1.6945	600	750	8.0	13	W202010454

Hollow electrodes

The hollow core design of this round electrode enables faster travel speeds while maintaining groove depth.

Diameter x length (mm)	Quantity per box	Gross weight per box (kg)	I mini (A)	I max (A)	Air pressure (bars)	Airflow (m3/h)	Reference
5 x 305	100	1.0472	200	300	5.0	10	W202010455
8 x 305	50	1.3394	450	550	7.0	12	W202010456
9.5 x 305	50	2.0554	500	700	7.0	12	W202010457

CARBONAIR PLUS

Jointed electrodes

Round electrodes with male and female connections to eliminate stub loss. Applicable in medium and heavy duty metal cutting. This process requires a MMA DC power source, a gouging torch and compressed air source.

Diameter x length (mm)	Quantity per box	Gross weight per box (kg)	I mini (A)	I max (A)	Air pressure (bars)	Airflow (m3/h)	Reference
8 x 355	50	1.713	400	500	7.0	12	W000010448
10 x 430	50	3.0726	700	850	8.0	13	W000010449
13 x 430	50	5.0886	1000	1200	9.0	14	W000010450
16 x 430	25	3.8728	1300	1500	10.0	16	W000010451
19 x 430	25	5.3048	1500	1700	10.0	16	W000010452

GOUGING TORCHES

FLAIR® 600 / 1600

- The torch can rotate 360° on the monocable, allowing unrestricted movement.
- Smoothly finished body for perfect airflow – manufactured with the greatest accuracy. The inner body is perfectly shaped which results in a perfect airflow, better cooling and a longer lifespan.
- Highly conductive extruded body and nozzle (non-casted) – better conduction and less heat development and consequently a longer product lifetime.
- Thicker heat resistant insulation – not only ensures a longer product lifetime, but also safer, more convenient and more productive working conditions.
- Flexible monocable (2.5 meter) ensures more ergonomical, effective working conditions.
- The airflow can be regulated on the torch.

	FLAIR® 600	FLAIR® 1600
Reference	W000010136	W000010118
Output Power	600A@60%	1600A@60%
Open arc voltage	> 60 VDC	
Required Voltage	35-56 VDC	
Compressed air	400-900 l/min @5-7 bar	
Electrode diam. max.	10 mm	19 mm

ACCESSORIES

OPTIONS	
CART 24	**K14191-1**
CART 4 WHEELS	**K14298-1**
CART KIT FOR PARALLEL EQUIPMENT	**K14446-1**

ACCESSORIES	
REMOTE CONTROL – HAND 15m	**K14147-1**
FOOT REMOTE CONTROL (AMPTROL™)	**K870**
EXTENSION CORD 15m	**K14148-1**
PARALLEL CONNECTION BOX	**K14445-1**
REMOTE CONTROL DUAL CHANNEL 15m	**K14443-1-15M**
PANEL PLUG	**W000370297**

WELDING CABLES AND TORCHES	
KIT 50C50+	**W000260682**
GROUND CABLE 400A/70mm²; 5m	**GRD-400A-70-5M**
GROUND CABLE 400A/70mm²; 10m	**GRD-400A-70-10M**
GROUND CABLE 400A/70mm²; 15m	**GRD-400A-70-15M**
ELECTRODE HOLDER 400A/70mm² - 5m	**E/H-400A-70-5M**

GOUGING TORCHES	
FLAIR® 600 GOUGING TORCH	**W000010136**
FLAIR® 1600 GOUGING TORCH	**W000010118**

GOUGING ELECTRODES	
CARBON ELECTRODES 5 x 305	**W000010443**
CARBON ELECTRODES 6.4 x 305	**W000010444**
CARBON ELECTRODES 8 x 305	**W000010445**
CARBON ELECTRODES 10 x 305	**W000010446**

CART 24
K14191-1

CART 4-WHEELS
K14298-1

FOOT AMPTROL™
K870

PARALLEL CONNECTION BOX
K14445-1

GROUND CABLE
GRD-400A-70-5M
GRD-400A-70-10M
GRD-400A-70-15M

ELECTRODE HOLDER
E/H-400A-70-5M

KIT 50C50+
W000260682

EXTENSION CORD 15M
K14148-1

REMOTE CONTROL
K10095-1-15M

REMOTE CONTROL DUAL CHANNEL 15M
K14443-1-15M

FLAIR® 600
W000010136

FLAIR® 1600
W000010118

CARBON ELECTRODES
W000010443
W000010444
W000010445
W000010446

TECHNICAL SPECIFICATION

POWER SOURCE

Product	Item number	Primary voltage	Fuse size (A)	I1eff (A)	I1max (A)	Max. input power (kVA)	Rated output (A)		Welding current range (A)	Open Circuit Voltage (V)	Temperature range		EMC class	Weight (kg)	Dimensions H x W x D (mm)	Protection class
							TIG	MMA			Operating	Storage				
LINC® i400S	K14438-1	400V ± 15% 3Ph	25	16.9	24.9	12.9 @40% (TIG) 17.4 @40% (MMA)	400A@40% 360A@60% 300A@100%	400A@40% 360A@60% 300A@100%	5-400	85 (11V VRD)	-10°C to +40°C	-25°C to +55°C	A	30	500 x 294 x 624	IP23

CART

Product	Item number	Max. gas cylinder diameter (mm)	Max. gas cylinder height (mm)	Wheels diameter (mm)	Weight (kg)	Dimensions H x W x D (mm)	Other features
Cart 24	K14191-1	240	1700	250	33.8	1180 x 540 x 600	Low gas cylinder entry Drawer for storage of consumables Integrated cable management allowing for a neat work area Remote control and TIG rod housings Vertical design to save space in shop environments
Cart 4 wheels	K14298-1			125 (front) 250 (rear)	36	534 x 905 x 999	Low gas cylinder entry Rubber bumpers for feet protection 4 lifting eyes for easy transportation

LE-E3-25EN-M2215