

**REDESIGNED**  
FOR BETTER PERFORMANCE



# POWERTEC®-i COMPACT RANGE

i250C · i320C STANDARD  
i250C · i320C · i380C · i450C ADVANCED



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

# POWERTEC®-i COMPACT RANGE

The **POWERTEC® i COMPACTS RANGE** is built on the latest Lincoln inverter platform, ensuring optimal **MIG/MAG** and **MMA** welding performance with excellent power and cost efficiency.

The range consists of: 250A, 320A, 380A and 450A power sources with a choice of either the **STANDARD** panel (i250C & i320C) or the **ADVANCED** panel (i250C, i320C, i380C & i450C), that meet most customers' needs and covers a wide range of welding applications.

The Plug & Play water cooler COOLARC® 26 is available for **POWERTEC® i380C & i450C ADVANCED**.

## CHOOSE LINCOLN FOR EXCELLENT AND EFFICIENT MIG/MAG AND MMA WELDING



# ADVANCED

FULLY SYNERGIC  
7" TFT COLOR SCREEN



**POWERTEC® i450C**  
450A@80%



**POWERTEC® i380C**  
380A@40%



**POWERTEC® i320C**  
320A@40%



**POWERTEC® i250C**  
250A@60%



**POWERTEC® i320C**  
320A@40%



**POWERTEC® i250C**  
250A@60%

# STANDARD

MANUAL MIG  
SIMPLE USER INTERFACE

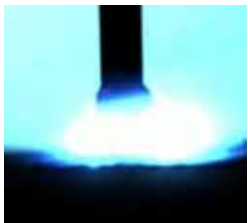
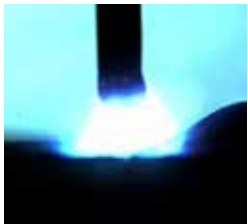
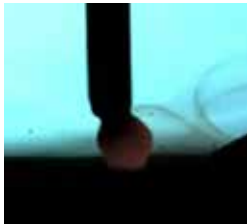
## SPECIFICATIONS

Product	Item Number	Version	Input (V)	Rated Output (A)			Weight (kg)	Dimensions W x L x D (mm)	Protection Class
				100%	60%	40%			
Powertec i450C	K14289-1	Advanced	400V 3Ph± 15% 50/60 Hz	420	450 (80%)	–	82	560 x 935 x 878	IP23
Powertec i380C	K14288-1			240	320	380	70		
Powertec i320C	K14287-1			195	250	320			
Powertec i250C	K14285-1					–			
Powertec i320C	K14286-1	Standard		320	69	–			
Powertec i250C	K14284-1			–					

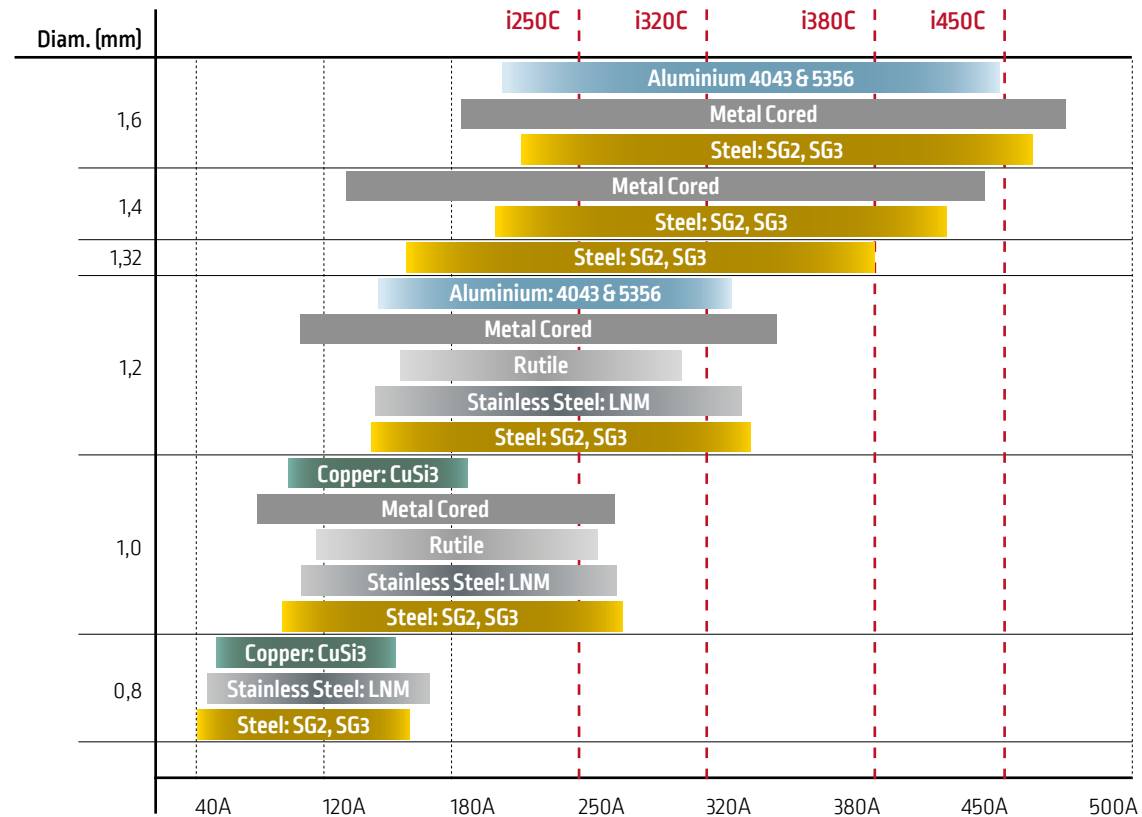
Product	Item Number	Input (V)	Cooling power @1L/min [(kW)	Reservoir capacity (l)	Maximum Pressure (MPa)	Weight (kg)	Dimensions W x L x D (mm)	Protection Class
COOL ARC® 26	K14182-1	230/400V ± 15% 50/60 Hz	0,84	4	0,47	18	260 x 150 x 680	IP23

# PREMIUM ARC PERFORMANCE

- **ARC INITIATION** – Repeatable arc ignition with outstanding arc characteristics.
- **ARC STABILITY** – Excellent arc stability, ensuring a smooth droplet transfer with reduced spatter.
- **ARC DYNAMICS** – Rapid parameter adjustment allowing variability under welding conditions.



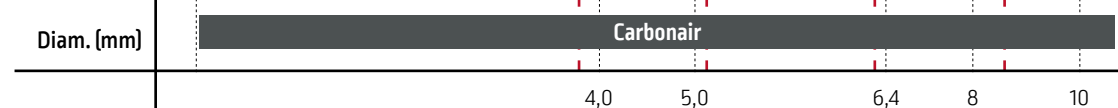
## MIG/MAG Wire



## Stick Electrodes



## Gouging Electrodes



## Processes

- GMAW
- FCAW-G
- FCAW-S
- SMAW
- CAG (only i450C)

## Materials

- Steel
- Stainless steel
- Low alloy steel
- Aluminium
- MIG brazing

## Applications

- General fabrication
- Construction site
- Maintenance and repair
- Light industrial

# NEW! FEATURES

**NEW ERGONOMIC HANDLE** for safe movement of the machine and an effortless grip, even when wearing gloves

## CABLE MANAGEMENT SYSTEM

[option]  
For easy transportation of the whole welding system, (cables, guns, etc.)

## NEW ENCODERS

for more precise adjustment



## CLOCK & CALENDAR

Weld quality data can also be monitored, logged and recorded using a USB

Start Time	Average WFS (mm/min)	Average current [A]	Average voltage [V]	AFC Time [s]	Mode	Job	Job (Name)
26.09.2020 21:33	1.49	164	21.13	35	3	-	-
27.09.2020 19:53	1.49	165	21.23	23	3	-	-
27.09.2020 19:55	1.49	163	21.35	15	3	-	-
27.09.2020 19:59	1.49	162	21.16	32	3	-	-
27.10.2020 10:53	6.60	215	23.6	32	12	3	Welder 1
27.10.2020 10:55	6.60	218	23.55	33	12	3	Welder 1
27.10.2020 10:58	6.60	220	23.45	31	12	3	Welder 1
27.10.2020 11:02	6.60	214	23.56	32	12	3	Welder 1
27.10.2020 11:08	6.60	219	23.3	35	12	3	Welder 1
27.10.2020 11:12	4.31	140	20.4	33	12	-	-
27.10.2020 16:15	4.31	140	20.5	15	12	-	-
27.10.2020 16:18	4.31	140	20.3	14	12	-	-
27.10.2020 16:21	4.31	140	20.35	12	12	-	-
27.10.2020 16:25	4.31	140	20.5	14	12	-	-



## SPEAKER

Additional audio signals when adjusting the encoders and when any improper operation is selected. Training, advertising and other video displays now also include sound



# FUNCTIONALITIES & ERGONOMICS

## ERGONOMIC DESIGN

- Tilting gas bottle tray for ease of loading
- Ideal height for easy-to-view settings
- Easy maneuverability and small footprint
- Convenient top-mounted expendable parts compartment



**Gun rest**

**Tools storage**

**COOL ARC® 26**  
*as option [only for i380c & i450c]*

**UI protection cover**

**LED lighting inside feeder chamber**

**7" color TFT screen**  
*Simple navigation also when using welding gloves*

**Inspection window**

**Rubber bumpers protecting feet**  
*[as standard for i380c & i450c]*

**Low gas cylinder entry**

**4 lifting eyes** for easy hook-in and safe transportation

**Large wheels** to easily and effortlessly overcome obstacles such as cables or thresholds

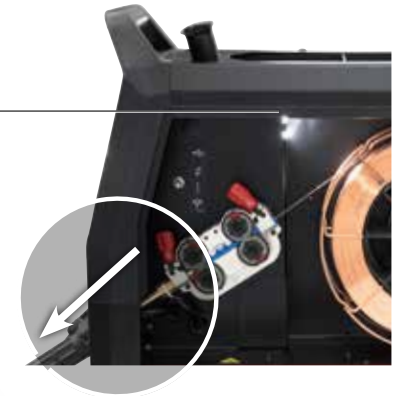
# STATE OF THE ART TECHNOLOGY IN WIRE FEEDING

## Professional wire feeding system – robust and precise

- 4 individually driven rolls for extremely stable wire feeding of various wire types
- Aluminum housing for a long service life
- Big roll diameter (37 mm) for optimal wire feeding
- Simple, tool-free roll change
- Factory-fitted with rolls for 1,0 mm and 1,2 mm steel and stainless steel

**LED lights:**  
better visibility

**Optimized wire positioning:**  
improved arc stability & reduced gun vibration



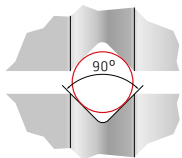
Steel	3 ÷ 5
Stainless steel	
Braze	
Flux cored	2,5 ÷ 3,5
Aluminium	1,5 ÷ 2,5

Wire feeder pressure set-up

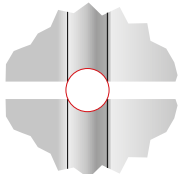
3 ÷ 5	Steel
	Stainless steel
	Braze
2,5 ÷ 3,5	Flux cored
1,5 ÷ 2,5	Aluminium

### Individually adjustable contact pressure for the front and rear roll pair

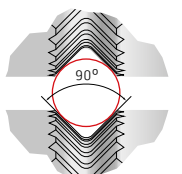
Adjustable set-up for aluminium, steel, stainless steel, braze, flux cored wire



V-groove for stainless steel, steel



U-groove for aluminium



V-groove, knurled for flux cored wire

### Color-coded for wire diameter differentiation



**New locking system, quick exchange of roll and wire guides**  
Simple, tool-free roll change – just few steps

- 1 Unlock the roll fastener
- 2 Unlock pressure arm
- 3 Exchange the roll



# BUILT FOR DEMANDING INDUSTRIAL CONDITIONS

## High duty cycle 420A/100% (i450C)

- High production efficiency
- Digital arc control
- True HEAVY DUTY

## Inverter engine technology – ECO Friendly

- Lower energy consumption
- Automatic power-saving modes (standby/shutdown function)
- Generator ready

## Lincoln Electric Industrial design – ready to use anywhere

- Safety class IP23, potted PCBs and no structural plastics
- 3 Year full parts and labour warranty



## Easy maintenance and servicing

Easy access to internal components  
Software update via laptop or USB  
(Advanced version)

## Intelligent F.A.N. (Fan As Needed)



Cooling  
tunnel design



# INNOVATIVE, INTUITIVE USER INTERFACE – REDUCED TIME FOR TRAINING

Simple navigation also when using welding gloves

## Innovative and easy communication

- Two controls, one button for easy navigation
- Icon language for key commands
- Easy process and settings selection
- ARCFX™ – joint visualization
- Work point in material thickness [mm] / WFS / A
- Locking function / Limits / Memories / Jobs
- Interface available in languages: English, German, French, Polish, Finnish, Spanish, Italian, Russian, Dutch, Romanian, Slovakian, Hungarian, Czech, Turkish, Portuguese

7" COLOR  
DISPLAY!

## More functions & features

**Auto**

### AUTO-SETTINGS

Preset parameters to increase productivity.



### USB CONNECTIVITY

Easy software update & diagnostics, weld log for quality monitoring.

**NEW**



### SPEAKER

Product operation (adjusting the encoders or pressing the button) and errors signaled by a sound.

**NEW**



### CLOCK & CALENDAR

Simple welding quality monitoring as weld log data recording on USB.



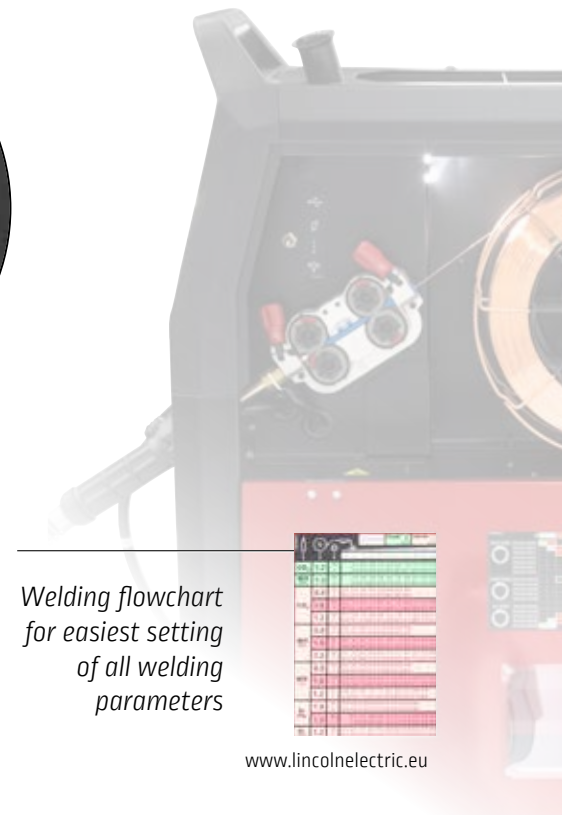
# STANDARD USER INTERFACE – BASIC SETTINGS

## Welding Process & Shielding Gas Selection

- Welding characteristics optimized in terms of welding process (GMAW/FCAW or SMAW) selection and shielding gas type for the best dynamics and minimal spatter
- Simple and quick selection by pressing the button
- LEDs showing the selected process

## Easy access to the most commonly used welding parameters:

- **Arc dynamics** (inductance effect - from soft to hard)
- Torch trigger mode **2-step / 4-step**
- Wire Feed Speed **Run-in** function
- **Burn-back time**



Welding flowchart for easiest setting of all welding parameters

# STANDARD VS ADVANCED – COMPARISON OF FUNCTIONS AND FEATURES



ADVANCED		STANDARD
7" Color TFT	UI type	LED's
✓	Speakers	-
✓	Clock and calendar	-
✓	Display view configuration	-
✓	Auto settings	-
✓ [50]	Memory Jobs	-
✓	Limits	-
✓	Locking function	-
✓	Languages	-
✓	USB connectivity	-
✓	Media files (Support)	-
✓	Weld Logs / History	-
✓	Quick Triger	-
✓	Push-Pull gun	-
✓	Cross-switch gun	-
✓	A/B procedure	-
✓	Software version	✓
✓	Factory Reset	✓
✓	Inductance	✓
✓	2T/4T Gun mode	✓
✓	Spot welding	✓
✓	Gas purge test	✓
✓	Cold Inch test	✓
✓	Preflow time	✓
✓	Run-in WFS	✓
✓	Start procedure	-
✓	Crater procedure	✓
✓	Burnback time	✓
✓	Postflow time	✓
✓	Hot Start (SMAW)	✓
✓	Arc Force (SMAW)	✓
<b>ADVANCED</b>	<b>Welding Processes</b>	<b>STANDARD</b>
✓	GMAW / FCAW	✓
✓	Stick mode	✓
✓	Synergic	-
✓ [i450C]	CAG	-

Product	Model	Welding parameters	Setting	Synergic Modes	Support on screen <sup>(2)</sup>	ARCFX™	Memories / JOBS / Limits	Locking function	USB	Languages selection	Cooler connection	Others
Powertec i450C	Advanced	7 TFT colour screen with ARCFX™	Auto / Manual	33	•	Joint visualization Work point in A/mm	• [49]	•	• Software update Welding Data Collection	•	•	Procedure A/B Quick Trigger Push-Pull Gun
Powertec i380C				28								
Powertec i320C				25								
Powertec i250C				25								
Powertec i320C	Standard	LEDs meters	Manual	[7] <sup>(1)</sup>	-	-	-	-	-	-	-	-
Powertec i250C				-	-	-	-	-	-	-	-	-

(1) Welding Process & Shielding Gas Selection: MIG / FCW Manual with MIX, CO2, Ar gas & STICK mode

(2) Technical data, list of accessories, instructions & safety information directly on the screen

# COOL ARC® 26

## More functions and features



[Back side view]

**Built-in handle** for easy transportation

**Cooler fully controlled by power source:**

AUTO/ON/OFF for better energy savings and extended service life



**Coolant filter** keeps coolant clean

**LED lights inside reservoir** for clearer visibility of the coolant level

**Flow sensor inside** for gun protection



**Simple Connection and Easy Installation**

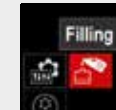
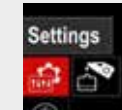


## New COOL ARC® 26 cooler fully controlled by power source

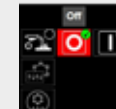


Cooler Menu is available when cooler is connected

**Settings: 3 Modes of operation available:**



1. AUTO
2. OFF
3. ON



### Filling Procedure

step by step detail filling instruction



# LGS2 MIG GUNS

Simple and reliable, this range is adapted to the most common applications.



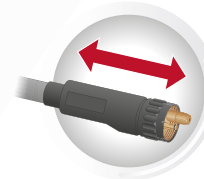
Wear parts compatible with the most common standard in Europe.



Easy pivoting handle.



Extra-flexible cable.



Extra length rear cable support ensures smooth and consistent wire feeding.



Compliant with the European requirement for MIG guns.

## Choose your gun

Rating calculated using CO<sub>2</sub>

- Air cooled
- Water cooled
- Dedicated guns

Series	Size	Rate	200A	230A	250A	270A	330A	350A	420A	500A
LGS2	250G	60%	█							
	240G		█							
	360G	█								
	505W	100%	█							

### TO ORDER

3 m	4 m	5 m
W10429-25-3M	W10429-25-4M	W10429-25-5M
W10429-24-3M	W10429-24-4M	W10429-24-5M
W10429-36-3M	W10429-36-4M	W10429-36-5M
W10429-505-3M	W10429-505-4M	W10429-505-5M

MODEL	AIR COOLING			WATER COOLING
	LGS2-250G	LGS2-240G	LGS2-360G	LGS2-505W
Duty cycle (CO <sub>2</sub> shielding gas)	230 A @ 60%	250 A @ 60%	330 A @ 60%	500 A @ 100%
Applications	Thin plates, light fabrication	Thin plates, light fabrication	Vessel manufacture, steel structures	Heavy duty, high production
Wire diameter	Up to 1,2 mm	Up to 1,2 mm	Up to 1,6 mm	Up to 2,4 mm
Original equipment	Contact tip	1,0 mm	1,0 mm	1,2 mm
	Conical nozzle	15 mm	12,5 mm	16 mm

# ACCESSORIES

• Optional ✓ Included

		Powertec®					
		ADVANCED			STANDARD		
		i450C	i380C	i320C	i250C	i320C	i250C
		K14289-1	K14288-1	K14287-1	K14285-1	K14286-1	K14284-1
Control panel cover KIT	K14325-1		✓			•	
Bumpers KIT	K14328-1		✓			•	
Polarity change KIT	K14173-1		✓			•	
Cooler COOL ARC® 26	K14182-1		•			-	
Coolant FREEZCOOL 9,6 l	W000010167		•			-	
Cable Management KIT	K14201-1				•		
Gas flow meter KIT	K14175-1				•		
Gas heater harness KIT	K14176-1				•		
12PIN Remote Control KIT	K14290-1			•			-
6-PIN/12-PIN adapter	K2909-1			•			-
Remote control (iPOT, required K14290-1 and K2909-1 adapter KITS)	K10095-1-15M			•			-
Remote control MIG 7M (required K14290-1 KIT)	K14091-1			•			-
Water cooled Push-Pull gun LG PPLG405WC 8 m (required K14290-1 kit)	K10413-PPW405-8M		•			-	
PROMIG PP 341 8M (Standard)	W000385860			•			-
PROMIG PP 341 8M (Potentiometer)	W000385861			•			-
PROMIG PP 441W 8M (Standard)	W000385862		•			-	
PROMIG PP 441W 8M (Potentiometer)	W000385863		•			-	
Adapter 12PIN -> 19 PIN	W100000031			•			-
Cable with Electrode holder 400A/70 mm <sup>2</sup> – 5 m	E/H-400A-70-5M				•		
Adapter for spool type S300 (300 mm)	K10158				•		
Adapter for spool type S300 (300 mm)	K10158-1				•		
Adapter for spool S200 (200 mm)	R-1019-125-1/08R				•		



# ACCESSORIES

## Wire Guides

Wire Guide Set Blue 0,6-1,6	<b>0744-000-318R</b>
Wire Guide Set Red 1,8-2,8	<b>0744-000-319R</b>
Euro Wire Guide 0,6-1,6	<b>D-1829-066-4R</b>
Euro Wire Guide 1,8-2,8	<b>D-1829-066-5R</b>

## Roll Kit for solid wires

Roll Kit 0,6 / 0,8VT F137 4 rolls (green/blue)	<b>KP14150-V06/08</b>
Roll Kit 0,8 / 1,0VT F137 4 rolls (blue/red)	<b>KP14150-V08/10</b>
Roll Kit 1,2 / 1,6VT F137 4 rolls (orange/yellow)	<b>KP14150-V12/16</b>
Roll Kit 1,6 / 2,4VT F137 4 rolls (yellow/grey)	<b>KP14150-V16/24</b>
Roll Kit 0,9 / 1,1VT F137 4 rolls	<b>KP14150-V09/11</b>
Roll Kit 1,4 / 2,0VT F137 4 rolls	<b>KP14150-V14/20</b>

## Roll Kit for aluminium wires

Roll Kit 0,6 / 0,8AT F137 4 rolls (green/blue)	<b>KP14150-U06/08A</b>
Roll Kit 0,8 / 1,0AT F137 4 rolls (blue/red)	<b>KP14150-U08/10A</b>
Roll Kit 1,0 / 1,2AT F137 4 rolls (red/orange)	<b>KP14150-U10/12A</b>
Roll Kit 1,2 / 1,6AT F137 4 rolls (orange/yellow)	<b>KP14150-U12/16A</b>
Roll Kit 1,6 / 2,4AT F137 4 rolls (yellow/grey)	<b>KP14150-U16/24A</b>

## Roll Kit for cored wires

Roll Kit 1,2 / 1,6RT F137 4 rolls (orange/yellow)	<b>KP14150-V12/16R</b>
Roll Kit 1,4 / 2,0RT F137 4 rolls	<b>KP14150-V14/20R</b>
Roll Kit 1,6 / 2,4RT F137 4 rolls (yellow/grey)	<b>KP14150-V16/24R</b>
Roll Kit 0,9 / 1,1RT F137 4 rolls	<b>KP14150-V09/11R</b>
Roll Kit 1,0 / 1,2RT F137 4 rolls (- / orange)	<b>KP14150-V10/12R</b>



### Each item # contains:

- metal wire guide for Euro socket
- 4 rolls
- plastic wire guide set

#### **CUSTOMER ASSISTANCE POLICY**

The business of The Lincoln Electric Company® is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to enquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

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