

POWERTEC®-iS RANGE

i350S · i420S · i500S

TPS
WeldTech



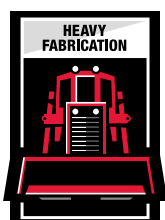
LINCOLN
ELECTRIC

COMPLETE SOLUTION FOR INDUSTRY

POWERTEC®-i S RANGE

Reliable workhorses are coming. They are as solid as always, more convenient than ever, and superbly productive. These products will help you get more things done. Based on modern inverter technology, they continue the well-established **POWERTEC®-i series**, which now offers separate wire feeders. This is another, decisive step into the future of professional welding. With a specially designed, rugged construction, which is subjected to a large variety of tests (Lincoln Electric TRUE HD), they are ready to work in even the most demanding environmental and production conditions. The devices are dedicated especially for heavy-fabrication, structural, transportation, shipbuilding and off-shore industries.

The design of **POWERTEC®-i S RANGE** series is the one that truly stands out. It is ergonomic and efficient in every detail. Various configuration systems, separated wire-feeding units, intuitive display interface (7 color TFT), dedicated accessories, and many other features will meet all your industrial welding needs while enhancing your capabilities.



POWERTEC®-iS RANGE

POWERTEC®-iS RANGE is a brand new range of Lincoln Electric products based on the latest inverter platform, combining modularity, ease of use and optimal **MIG/MAG** or **MMA** welding performance with excellent power cost efficiency.

Three power sources: **i350S**, **i420S** and **i500S** with a choice of separate wire feeders, standard **LF 52D** for basic use, or the advanced **LF 56D** for more demanding applications, helps customer to fulfill every possible welding needs.

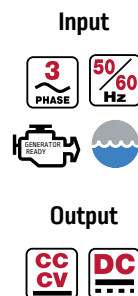
All **POWERTEC®-iS** have the option of water cooling by simply adding the new **COOLARC® 26**.



POWERTEC® i350S
350A@50%

POWERTEC® i500S
500A@60%

POWERTEC® i420S
420A@100%



COOLARC® 26



LF 52D



LF 56D



**CHOOSE LINCOLN ELECTRIC
FOR COMPLETE SOLUTION
FOR INDUSTRIAL USERS WITH
NEW HEAVY DUTY DESIGN**



NEW ERGONOMIC DESIGN



Simple navigation
also when using
welding gloves

Practical handle for effortless gripping
even with gloves and safe movement
of the machine



Cable Management System (option)
For easy transportation of the
whole welding system even with
very long connection cable

Heavy duty undercarriage

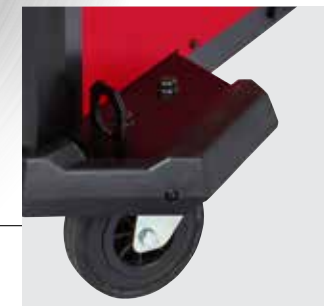
- Extremely reliable and stable, passed incline stability tests on 15°
- Low gas cylinder entree makes loading very easy
- Quick and easy securing of the shielding gas cylinder



**Power Source water
cooled ready**
(cooler COOLARC® 26
as option)



Rotatable wire feeder
Swivel on the power source enabling
rotation of the wire feeder and
setting it in any position



Rubber bumpers protecting feet
and **4 lifting eyes** for easy hook-in
and safe transportation

LINCOLN RELIABILITY



Cable connections on front (in standard) and **back rear side** (in option)
All cable connections can easily be made without tools



Intermediate hose packages
Heavy-duty protective hose
and military-quality plugs
Strain reliefs on both ends to keep
connections well protected
A wide range of lengths to choose
(up to 30m), water or air



Practical, big storage locker
inside the power source
with key lock, internal lights,
for accessories like gun, gloves,
rolls, contact tips, etc.

Large wheels for easily
effortlessly overcome obstacles
such as cables or thresholds

Very solid, stable, metal
made construction

RELIABLE WORKHORSES

High duty cycle 420A/100% (i420S & i500S)

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

Inverter engine technology – ECO Friendly

- Lower power consumption thanks to high efficiency – energy cost saving
- 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 labor warranty



Easy maintenance and servicing

Easy access to all components inside
Software update via laptop or USB (LF 56D)

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

Variable speed controlled fan (energy-saving)
Low pollution and quiet fan noise



Cooling tunnel design

– components arranged to protect against dust and dirt

OPTIMIZED ERGONOMICS



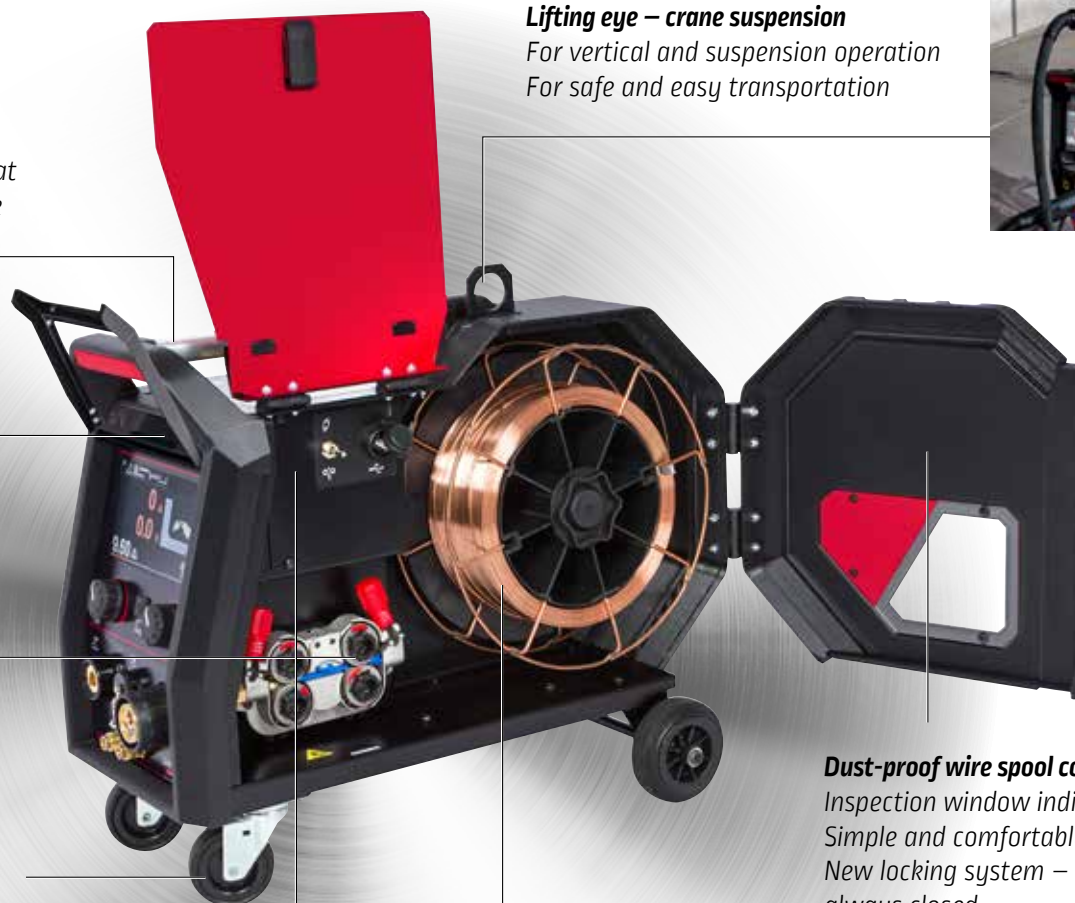
Gun Holder: always at hand, ready to work



Professional wire feeding system
Four driven wire feed rolls
Excellent wire feeding on every material
Permanent internal lights
Wire inching gas test toggle switch



Flowmeter for shielding gas flow setting [option]
Precise adjustment directly on site
Practical especially with long hose packages



Lifting eye – crane suspension
For vertical and suspension operation
For safe and easy transportation



Dust-proof wire spool cover
Inspection window indicates level of wire spool
Simple and comfortable spool change
New locking system – spool cover stays always closed



Full access for wire spool installation

STATE OF THE ART TECHNOLOGY IN WIRE FEEDING

Professional wire feeding system – robust and precise

- 4 individually driven rolls for extremely stable wire feeding for various wire types
- Aluminum housing for a long service life
- Big roll diameter (37mm) 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



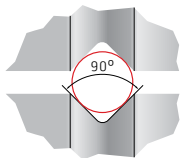
Connection for drum feed (optional adapter).
Less need to change wire spools saves time

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

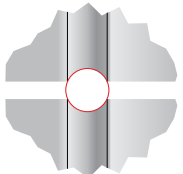
Wire feeder pressure set-up

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

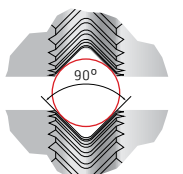
Individually adjustable contact pressure for the front and rear roll pair
Differently set-up for aluminium, steel, stainless steel, braze, flux cored wire



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



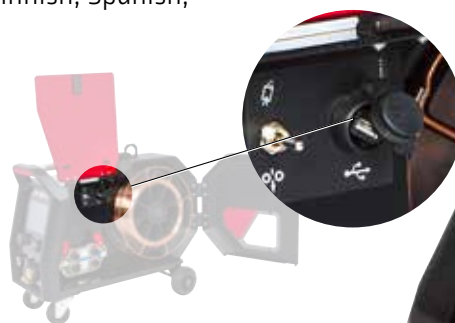
DESIGNED TO ENHANCE YOUR WELDING CAPABILITY



INNOVATIVE INTUITIVE INTERFACE

- 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

EASY COMMUNICATION



Auto

AUTO-SETTINGS

Preset parameters to increase productivity



USB CONNECTIVITY

Easy software update & diagnostics, weld log for quality monitoring

MORE FUNCTIONS & FEATURES

NEW



SPEAKER

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

NEW



NEW ENCODERS

for more precise adjustment

NEW



CLOCK & CALENDAR

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

7" COLOR DISPLAY!



Simple navigation also when using welding gloves

STANDARD USER INTERFACE

User memory programs & welding process change:

- Simple and quick selection by pressing the button of 4 welding programs stored in user memory or 3 welding processes (GMAW, FCAW, SMAW)
- LEDs showing the selected process

NEW

SYNERGIC Capability



BASIC SETTINGS SIMPLE IN USE

Quick and easy access to the most commonly used welding parameters:

- **Arc Controls** (depend on the welding program)
- Torch trigger mode **2-step / 4-step**
- Wire Feed Speed **Run-in** function
- **Burn-back** time



Sticker with description of all welding program numbers available.

LF 56D vs LF52 D

Different feeders for different needs



WELDING PROCESSES

	GMAW / FCAW	SYNERGIC	SMAW	CAG
LF 56D	✓	✓	✓	✓
LF 52D	✓	✓	✓	✓

LF 56D	Functions and features	LF 52D
7" Color TFT	UI type	LED's
✓	Speaker	–
✓	Clock and calendar	–
✓	ARC™FX (work point in A/mm)	–
✓	Display view configuration	–
✓	Auto settings	–
49	Memory / Jobs	(3+4)
✓	Limits	–
✓	Locking function	–
✓	Languages selection	–
✓	USB connectivity	–
✓	Media files (Support)	–
✓	Weld logs / History	–
✓	Cross-switch gun	–
✓	Push-Pull gun	–
✓	A/B procedure	–
✓	Quick trigger	–
✓	Software version	✓
✓	Factory reset	✓
✓	Arc Control	✓
✓	2T/4T Gun mode	✓
✓	Spot welding	✓
✓	Gas purge test	✓
✓	Cold Inch test	✓
✓	Preflow /Postflow time	✓
✓	Run-in WFS	✓
✓	Start procedure	–
✓	Crater procedure	✓
✓	Burnback time	✓
✓	Hot Start (SMAW)	✓
✓	Arc Force (SMAW)	✓

COOLARC® 26

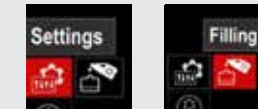
More functions and features



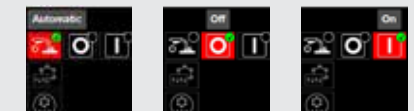
New COOLARC® 26 cooler fully controlled by power source

 Cooler Menu is available when cooler is connected

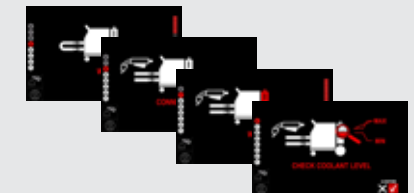
Settings: 3 Modes of operation available:



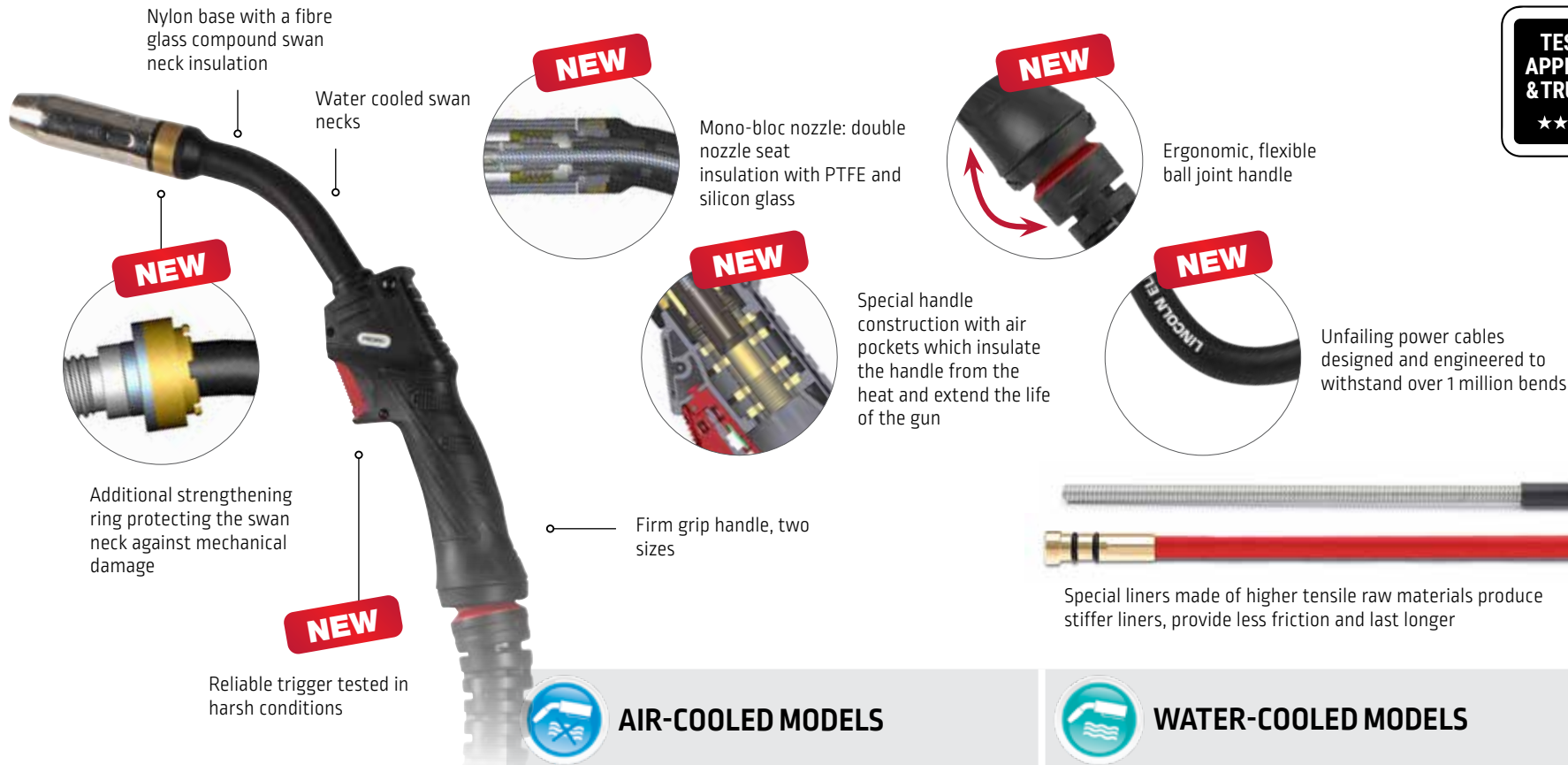
1. AUTO
2. OFF
3. ON



Filling Procedure step by step detail filling instruction



PREMIUM MIG WELDING GUNS – LINGUN® PROMIG™



		AIR-COOLED MODELS		WATER-COOLED MODELS		
		LG PROMIG 300	LG PROMIG 400	LG PROMIG 330W	LG PROMIG 400W	LG PROMIG 500W
Duty cycle	CO ₂	300 A @ 60%	400 A @ 60%	330 A @ 100%	400 A @ 100%	500 A @ 100%
	M21	270 A @ 60%	370 A @ 60%	300 A @ 100%	370 A @ 100%	450 A @ 100%
Wire diameter options		1.0-1.2 mm	1.0-1.6 mm	0.8-1.0 mm	1.0-1.2 mm	1.0-1.6 mm
Original equipment	Contact tip	1.2 mm steel	1.2 mm steel	1.0 mm steel	1.2 mm steel	1.2 mm steel
	Nozzle	Ø 16 mm	Ø 16 mm	Ø 14 mm	Ø 16 mm	Ø 16 mm
Handle size, other feature		Large	Large	Small	Small	Large
Typical application		Vessel, manufacture, steel structures, boiler making, structural steelwork	Thick plates, heavy duty welding when water cooling is not possible	Precision and high-intensity applications	Intensive applications such as boiler making, structural steelwork, mechanical welding	Thick plates, heavy duty welding
		Reference				
3 m		W000345066-2	W000345072-2	W000345063-2	W000345069-2	W000345075-2
4 m		W000345067-2	W000345073-2	W000345064-2	W000345070-2	W000345076-2
5 m		W000345068-2	W000345074-2	W000345065-2	W000345071-2	W000345077-2

LGS2 MIG GUNS

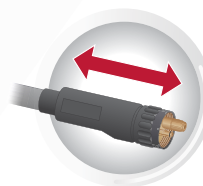
Simple and reliable, this range is adapted to the most common applications.



Wear parts compatible with the most common standard in Europe.



Extra-flexible cable.



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



Easy pivoting handle.



Is the European norm requirement for MIG guns.

Choose your gun

Rating calculated using CO₂

- Air cooled
- Water cooled
- Dedicated guns

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

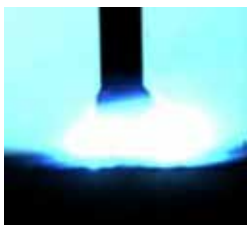
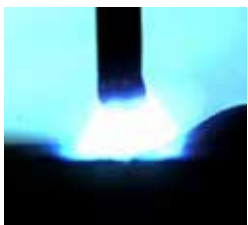
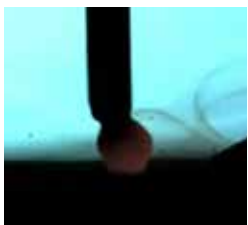
TO ORDER

3m	4m	5m
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

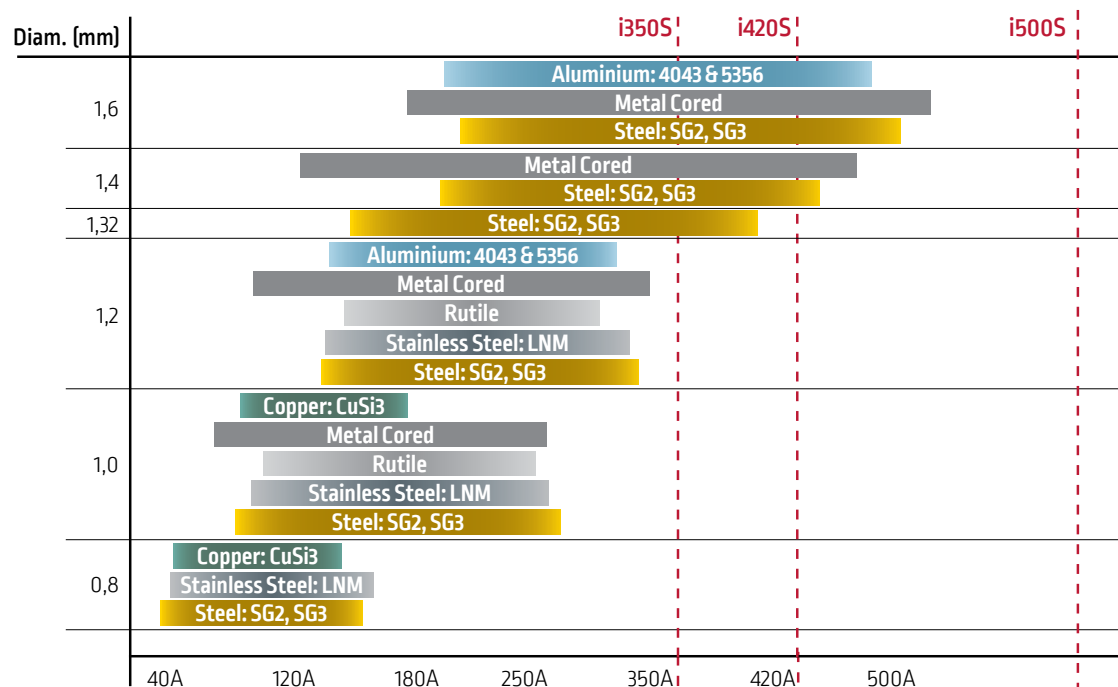
MODEL		AIR COOLING			WATER COOLING
		LGS2-250G	LGS2-240G	LGS2-360G	LGS2-505W
Duty cycle [CO ₂ shielding gas]		230 A @ 60%	250 A @ 60%	330 A @ 60%	500 A @ 100%
Applications		Thin plates, light fabrication	Thin plates, light fabrication	Vessel manufacture, steel structures	Heavy duty, high production
Wire 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	1,2 mm
	Conical nozzle	15 mm	12,5 mm	16 mm	16 mm

PREMIUM ARC PERFORMANCE

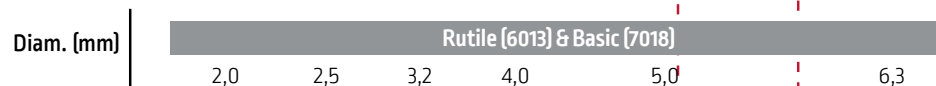
- **ARC INITIATION** – Repeatable arc ignition with outstanding arc characteristics.
- **ARC STABILITY** – Excellent arc stability, ensuring a smooth droplet transfer, with reduced spatter.
- **ARC DYNAMICS** – Rapid parameter adjustment allowing variability under welding conditions.



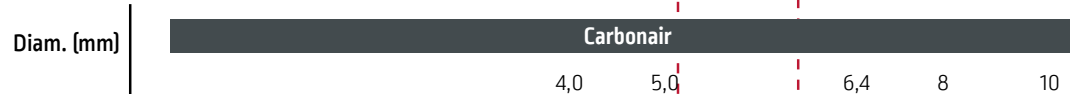
MIG/MAG Wire



Stick Electrodes



Gouging Electrodes



Processes

GMAW
 FCAW-G
 FCAW-S
 SMAW
 CAG

Welding of:

Steel
 Stainless Steel
 Low Alloy Steel
 Aluminium
 MIG Brazing

CONNECTIONS CONFIGURATION

STANDARD

Connection of the intermediate hose package in **front** of the power source



OPTIONAL

Connection of the intermediate hose package on the **back** of the power source



	Item type	Item description	Item # (Air)	Item # (Water)
1	Machine	POWERTEC® i350S	K14183-1	
		POWERTEC® i420S	K14184-1	
		POWERTEC® i500S	K14185-1	
2	Hose package	Air 1 m	K14198-PG ⁽¹⁾	—
		Air 3 m	K14198-PG-3M	—
		Air 5 m	K14198-PG-5M	—
		Air 10 m	K14198-PG-10M	—
		Air 15 m	K14198-PG-15M	—
		Air 20 m	K14198-PG-20M	—
		Air 25 m	K14198-PG-25M	—
		Air 30 m	K14198-PG-30M	—
		Water 1 m	—	K14199-PGW ⁽¹⁾
		Water 3 m	—	K14199-PGW-3M
		Water 5 m	—	K14199-PGW-5M
		Water 10 m	—	K14199-PGW-10M
3	Feeder	LF 52D	K14335-1	
		LF 56D	K14336-1	
4	Cooler	Coolarc® 26	—	K14182-1
5	MIG gun	LG PROMIG	see accessories	
		LGS2		
6	Option	Cable Management KIT	K14201-1	
7	Option	Gas flow meter KIT	K14175-1	
8	Option	Output connection KIT [i350S]	K14196-1	
		Output connection KIT [i420S / i500S]	K14202-1	
9	Option	Water connection KIT	—	K14208-1 ⁽²⁾

⁽¹⁾ only for connection on the back and requires the installation of the option 8

⁽²⁾ option requires only for water hose package longer than 1 m

ACCESSORIES

		Powertec®		
		i350S K14183-1	i420S K14184-1	i500S K14185-1
LF 52D	K14335-1	•	•	•
LF 56D	K14336-1	•	•	•
Coolarc® 26	K14182-1	•	•	•
Freezcool 9,6l	W000010167	•	•	•
Output socket connection kit (PT i350S)	K14196-1	•	—	—
Output socket connection kit (PT i420S / i500S)	K14202-1	—	•	•
Cable management kit	K14201-1	•	•	•
Gas supply heater kit (Powertec-İ)	K14176-1	•	•	•
Ground cable 400A – 70 mm ² – 5 / 10 / 15 m	GRD-400A-70-xM*	•	—	—
Ground cable 600A – 95 mm ² – 5/10 m	GRD-600A-95-xM*	•	•	•
Remote control RC-7 Advanced	K14203-1	•	•	•
Intermediate hose package AIR				
Cable pack 5-pin G – 70 mm ² – 1 m	K14198-PG	•	•	•
Cable pack 5-pin G – 70 mm ² – 3 / 5 / 10 m	K14198-PG-xM*	•	•	•
Cable pack 5-pin G – 95 mm ² 15 / 20 / 25 / 30 m	K14198-PG-xM*	•	•	•
Intermediate hose package WATER				
Cable pack 5-pin W – 95 mm ² – 1 m	K14199-PGW ⁽¹⁾	•	•	•
Cable pack 5-pin W – 95 mm ² – 3 / 5 / 10 / 15 / 20 / 25 / 30 m	K14199-PGW-xM*	•	•	•
Water connection kit	K14208-1 ⁽²⁾	•	•	•

⁽¹⁾ only for connection on the back and requires the installation of the K14196-1 or K14202-1

⁽²⁾ option requires only for water hose package longer than 1 m

		Linc Feed	
		STANDARD	ADVANCED
		LF 52D K14335-1	LF 56D K14336-1
LINCUN®			
LG PROMIG 300 – MIG gun air cooled – 3 / 4 / 5 m	W000345066-2 / W000345067-2 / W000345068-2	•	•
LG PROMIG 400 – MIG gun air cooled – 3 / 4 / 5 m	W000345072-2 / W000345073-2 / W000345074-2	•	•
LG PROMIG 330W – MIG gun water cooled – 3 / 4 / 5 m	W000345063-2 / W000345064-2 / W000345065-2	•	•
LG PROMIG 400W – MIG gun water cooled – 3 / 4 / 5 m	W000345069-2 / W000345070-2 / W000345071-2	•	•
LG PROMIG 500W – MIG gun water cooled – 3 / 4 / 5 m	W000345075-2 / W000345076-2 / W000345077-2	•	•
LGS2 360 G – MIG gun air cooled – 3 / 4 / 5 m	W10429-36-xM*	•	•
LGS2 505 W – MIG gun water cooled – 3 / 4 / 5 m	W10429-505-xM*	•	•
Options			
Gas flow meter kit (Powertec-İ)	K14175-1	•	•
Wire feeder DRUM quick adapter	K14204-1	•	•
Cart HD for feeders	K14350-1	•	•
Remote control RC-7 Advanced	K14203-1	•	•
Sling with hook	K14378-1	•	•

* x = length [m]



COOLARC® 26
K14182-1



**REMOTE CONTROL
RC-7 ADVANCED**
K14203-1



**CABLE
MANAGEMENT KIT**
K14201-1



**WATER
CONNECTION KIT**
K14208-1 ⁽²⁾

INTERMEDIATE HOSE PACKAGE

AIR
K14198-PG (1 m)
K14198-PG-xM*

WATER
K14199-PGW (1m)
K14199-PGW-xM*



ACCESSORIES

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

Roll Kit for solid wires	
Roll Kit 0,6 / 0,8VT FI37 4 rolls (green/blue)	KP14150-V06/08
Roll Kit 0,8 / 1,0VT FI37 4 rolls (blue/red)	KP14150-V08/10
Roll Kit 1,2 / 1,6VT FI37 4 rolls (orange/yellow)	KP14150-V12/16
Roll Kit 1,6 / 2,4VT FI37 4 rolls (yellow/grey)	KP14150-V16/24
Roll Kit 0,9 / 1,1VT FI37 4 rolls	KP14150-V09/11
Roll Kit 1,4 / 2,0VT FI37 4 rolls	KP14150-V14/20

Roll Kit for aluminium wires	
Roll Kit 0,6 / 0,8AT FI37 4 rolls (green/blue)	KP14150-U06/08A
Roll Kit 0,8 / 1,0AT FI37 4 rolls (blue/red)	KP14150-U08/10A
Roll Kit 1,0 / 1,2AT FI37 4 rolls (red/orange)	KP14150-U10/12A
Roll Kit 1,2 / 1,6AT FI37 4 rolls (orange/yellow)	KP14150-U12/16A
Roll Kit 1,6 / 2,4AT FI37 4 rolls (yellow/grey)	KP14150-U16/24A

Roll Kit for cored wires	
Roll Kit 1,2 / 1,6RT FI37 4 rolls (orange/yellow)	KP14150-V12/16R
Roll Kit 1,4 / 2,0RT FI37 4 rolls	KP14150-V14/20R
Roll Kit 1,6 / 2,4RT FI37 4 rolls (yellow/grey)	KP14150-V16/24R
Roll Kit 0,9 / 1,1RT FI37 4 rolls	KP14150-V09/11R
Roll Kit 1,0 / 1,2RT FI37 4 rolls (- / orange)	KP14150-V10/12R



Each item # contains:

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

SPECIFICATIONS

Product	Item Number	Primary Voltage	Max Input Power (kVA)	Input I _{max} (A)	Fuse size (A)	Rated Output	Efficiency	Idle Power	Weight (kg)	Dimensions HxWxL (mm)	Protection Class	Item contains
POWERTEC® i350S	K14183-1	400V/3Ph 50/60Hz ± 15%	15	21	25	350A@50% 300A@100%	> 85%	< 35W	68	932 x 560 x 925	IP23	USB with operator's manual Ground cable with clamp (3m) Gas hose (2m) Chain (for gas cylinder protection) Slow-blow fuse 2A (2pcs)
POWERTEC® i420S	K14184-1		19	27	32	420A@100%			78			
POWERTEC® i500S	K14185-1		23	34	32	500A@60% 420A@100%			79			

Product	Item Number	Rated Output	Feeding System	WFS Range (m/min)	Solid Wires (mm)	Aluminum Wires (mm)	Cored Wires (mm)	Weight (kg)	Dimensions HxWxD (mm)	Protection Class	Item contains
LF 52D (Standard)	K14335-1	500A@60% 420A@100%	4 Rolls ø37mm	1,5 ÷ 22	0,8 ÷ 1,6	1,0 ÷ 1,6	0,9 ÷ 1,6	17	516 x 302 x 642	IP23	USB with operator's manual Rolls 1,0/1,2 for solid wire
LF 56D (Advanced)	K14336-1							17,7			

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	Item contains
COOLARC® 26	K14182-1	230/400V ± 15% 50/60 Hz	0,84	4	0,47	18	260 x 150 x 680	IP23	USB with operator's manual Blue and Red water hoses Black hose for filling procedure