

CITOSTEEL -S RANGE

355S • 425S • 505S

www.oerlikon-welding.com


OERLIKON®

COMPLETE SOLUTION FOR INDUSTRY

CITOSTEEL -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, now which 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, 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 **CITOSTEEL** 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.



CITOSTEEL-S RANGE

CITOSTEEL -S RANGE is a brand new range of Oerlikon 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: **355S**, **425S** and **505S** with a choice of separate wire feeders, standard **WF 52D** for basic use, or the advanced **WF 56D** for more demanding applications, helps customer to fulfill every possible welding needs.

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



CITOSTEEL 355S

350A@50%



CITOSTEEL 425S

420A@100%

CITOSTEEL 505S

500A@60%

INPUT



OUTPUT



COOLARC® 26



WF 52D



WF 56D

OUTPUT



WARRANTY



**CHOOSE OERLIKON
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



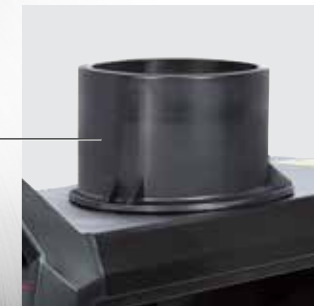
Cable Management System (option)
For easy transportation of the whole
welding system even with very long
connection cable

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

TRUE RELIABILITY



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



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



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 30 m), water or air

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% (425S & 505S)

- 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

Oerlikon 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 (WF 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

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



Front UI protection cover
keep your UI safe



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

Big wheels
as standard
for mobility



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

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 (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



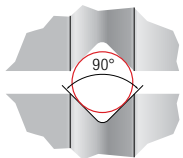
Connection for drum feed (optional adapter).
Less need to change wire spools saves time

Steel	3 ÷ 5
Stainless steel	
Braze	
Flux cored	2.5 ÷ 3.5
Aluminium	1.5 ÷ 2.5

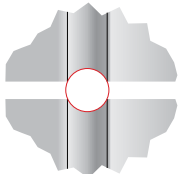
Wire feeder pressure set-up

3 ÷ 5	Steel
	Stainless steel
2.5 ÷ 3.5	Braze
	Flux cored
1.5 ÷ 2.5	Aluminium

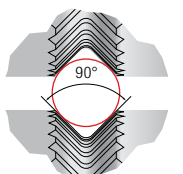
Individually adjustable contact pressure for the front and rear roll pair
Differently set-up for aluminium, steel, stainless steel, braze, flux cored wire



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 ENHANCED 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 **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 signalled 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

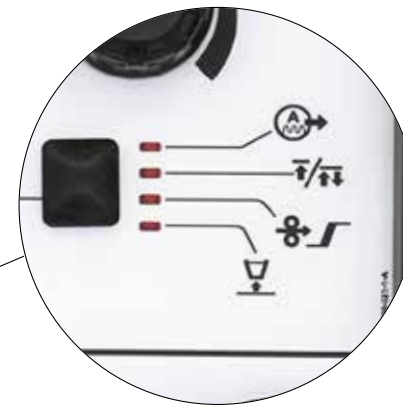
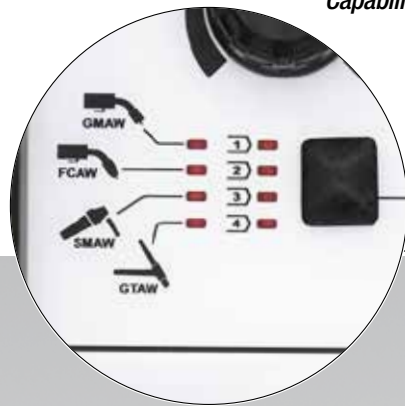
BASIC SETTINGS SIMPLE IN USE

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**

NEW

*SYNERGIC
Capability*



Welding flowchart for easiest setting of all welding parameters

LF 56D VS LF52 D

Different feeders for different needs



WELDING PROCESSES

	GMAW / FCAW	Synergic	SMAW	CAG
WF 56D	✓	✓	✓	✓
WF 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



(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
keep coolant clean

LED lights inside reservoir
for better visibility of the coolant level

Flow sensor inside
for gun protection



Simple Connection and Easy Installation

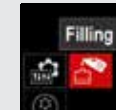
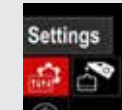


New COOLARC® 26 cooler fully controlled by power source

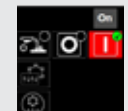
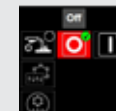


Cooler Menu is available when cooler is connected

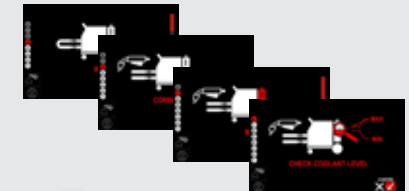
Settings: 3 Modes of operation available:



1. AUTO
2. OFF
3. ON



Filling Procedure
step by step detail filling instruction



PREMIUM MIG WELDING GUNS – LINGGUN® PROMIG™



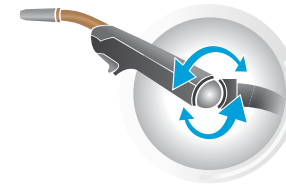
	AIR-COOLED MODELS		WATER-COOLED MODELS			
	LG PROMIG 300	LG PROMIG 400	LG PROMIG 330W	LG PROMIG 400W	LG PROMIG 500W	
Duty cycle	CO ₂	300 A @ 60%	400 A @ 60%	330 A @ 100%	400 A @ 100%	500 A @ 100%
	M21	270 A @ 60%	370 A @ 60%	300 A @ 100%	370 A @ 100%	450 A @ 100%
Wire diameter options	1.0-1.2 mm		1.0-1.6 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	Ø16 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	
	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.



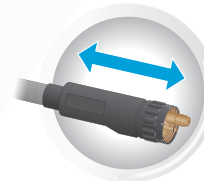
Wear parts compatible with the most common standard in Europe.



Easy pivoting handle.



Extra-flexible cable.



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



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%	█							

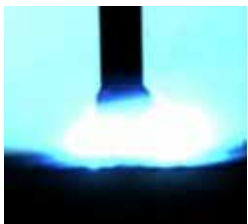
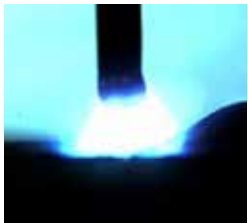
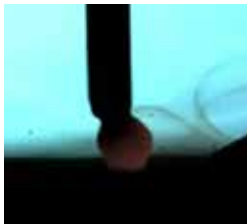
TO ORDER

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

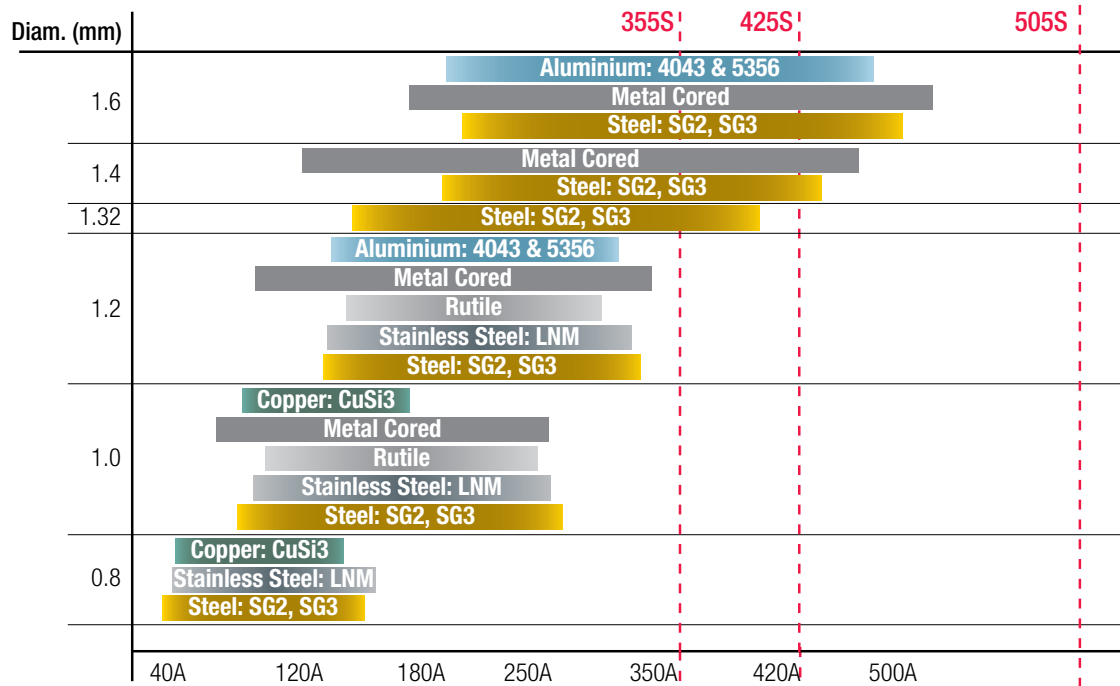
MODEL	AIR COOLING			WATER COOLING
	LGS2-250G	LGS2-240G	LGS2-360G	LGS2-505W
Duty cycle (CO ₂ shielding gas)	230 A @ 60%	250 A @ 60%	330 A @ 60%	500 A @ 100%
Applications	Thin plates, light fabrication	Thin plates, light fabrication	Vessel manufacture, steel structures	Heavy duty, high production
Wire 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
	Conical nozzle	15 mm	12.5 mm	16 mm

PREMIUM ARC PERFORMANCE

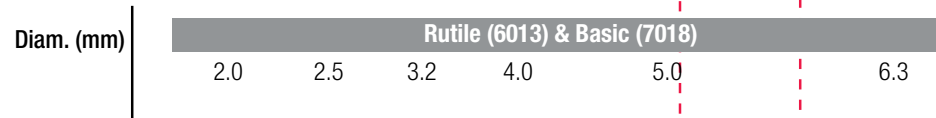
- **ARC INITIATION** – Repeatable arc ignition with outstanding arc characteristics.
- **ARC STABILITY** – Excellent arc stability, ensuring a smooth droplet transfer, with reduced spatter.
- **ARC DYNAMICS** – Rapid parameter adjustment allowing variability under welding conditions.



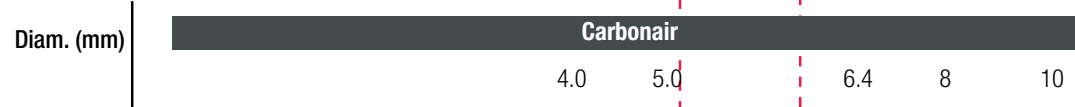
MIG/MAG Wire



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	CITOSTEEL 355S	W000404457	
		CITOSTEEL 425S	W000404458	
		CITOSTEEL 505S	W000404459	
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
		Water 15 m	–	K14199-PGW-15M
		Water 20 m	–	K14199-PGW-20M
		Water 25 m	–	K14199-PGW-25M
Water 30 m	–	K14199-PGW-30M		
3	Feeder	WF 52D	W100000176	
		WF 56D	W100000177	
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	
		Output connection KIT (355S)	K14196-1	
8	Option	Output connection KIT (425S / 505S)	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

		CITOSTEEL		
		355S	425S	505S
		W000404457	W000404458	W000404459
WF 52D	W100000176	•	•	•
WF 56D	W100000177	•	•	•
Coolarc® 26	K14182-1	•	•	•
Freezcool 9.6l	W000010167	•	•	•
Output socket connection kit (355S)	K14196-1	•	–	–
Output socket connection kit (425S / 505S)	K14202-1	–	•	•
Cable management kit	K14201-1	•	•	•
Gas supply heater kit	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

		Wire Feeder	
		STANDARD	ADVANCED
		WF 52D	WF 56D
LINGGUN®		W100000176	W100000177
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	K14175-1	•	•
Wire feeder drum quick adapter	K14204-1	•	•
Remote control RC-7 advanced	K14203-1	•	•
Cart HD for feeders	K14350-1	•	•
Sling with hook	K14378-1	•	•

* x = length (m)

* 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 H x W x D (mm)	Protection Class	Item contains
CITOSTEEL 355S	W000404457	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 (3 m) Gas hose (2 m) Chain (for gas cylinder protection) Slow-blow fuse 2A (2 pcs)
CITOSTEEL 425S	W000404458		19	27	32	420A@100%			78			
CITOSTEEL 505S	W000404459		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 H x W x D (mm)	Protection Class	Item contains
WF 52D (Standard)	W100000176	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
WF 56D (Advanced)	W100000177							17.7			

Product	Item Number	Input (V)	Cooling power @1L/min (kW)	Reservoir capacity (l)	Maximum Pressure (MPa)	Weight (kg)	Dimensions H x W 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



CUSTOMER ASSISTANCE POLICY

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