CEBORA
welding&cutting

2021
automation
catalogue

KINGSTAR MIG/MAG ROBOT

CEBORA GROUP
MADEINITALY

Global partner

Production efficiency, excellent value for money, prompt deliveries and minimum product risk, are at the basis of CEBORA's philosophy.
A dynamic and highly efficient sales force works together with the marketing department and technical assistance service, to meet the needs of customers around the world.

Thanks to the selection and continuous implementation of specific services provided to importers and distributors, CEBORA is able to rapidly and successfully deliver its products to every corner of the world.

Maximum support to customers and the sales network is also ensured thanks to regular training courses held directly at the premises by the same engineers who design the machines and thanks to the website which is constantly updated with information related to the latest production news of CEBORA GROUP.

CEBORA
wheels&motion
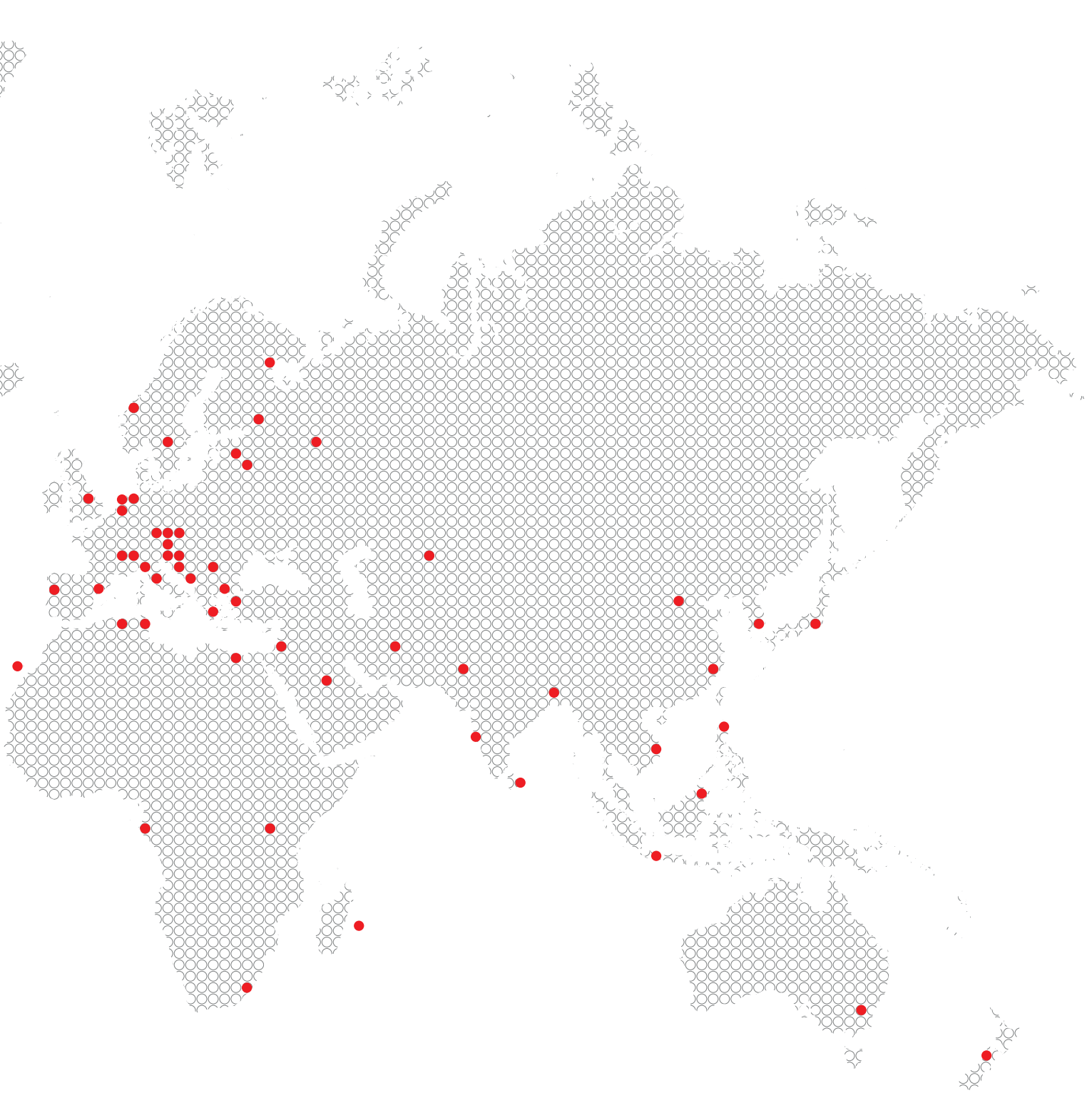
KINGSTAR MIG/MAG ROBOT

Latest generation **microprocessor** with unprecedented computing power for a state-of-the-art welding system, designed and manufactured today for tomorrow's needs. Totally new, reliable, open and flexible hardware and software platform, heart and brain of the whole new family of MIG/MAG KINGSTAR power sources. Extremly fast and accurate control of the welding parameters for a further improvement in **quality** and **performance** of our MIG/MAG Robot system on all metal types
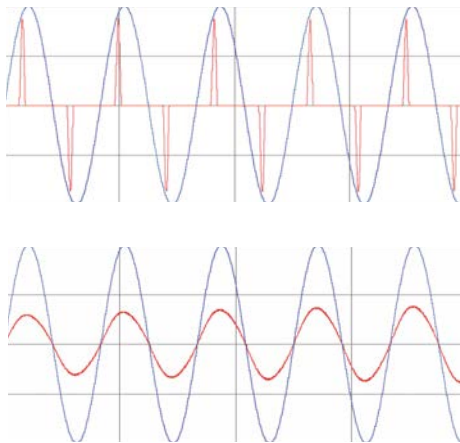

All the power sources of the KINGSTAR line are designed and manufactured according to the **IEC 61000-3-12** standard, which specifies the maximum permissible limits for harmonic distortion induced by the power source to the power supply net. The compliance with this standard (usually referred to as **PFC**) has the direct advantage of optimizing the absorption of electricity and thus saving the operating costs of the plant.

One **Ethernet** port with built-in **webserver** is available, to communicate with personal computers and other devices in a standard and fast way, compatible with the networking specifications required by **4.0 Industry.**
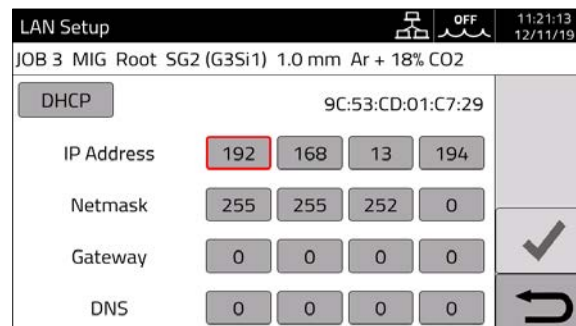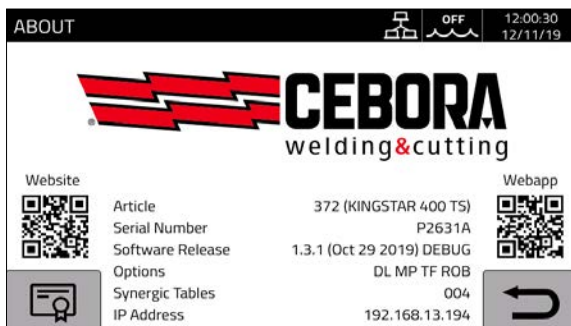
Modern colour 7″ touch screen panel embedded in the power source, to allow an easy and intuitive configuration of the process parameters, thanks also to the possibility of choosing among 8 **different languages** for the user menu
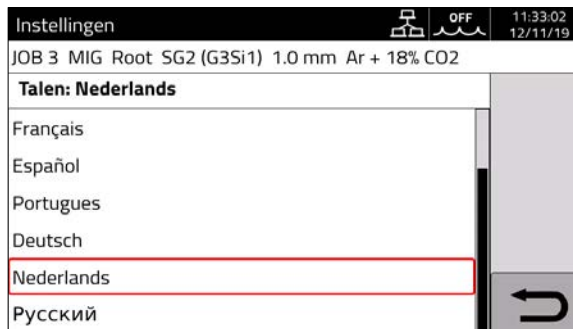
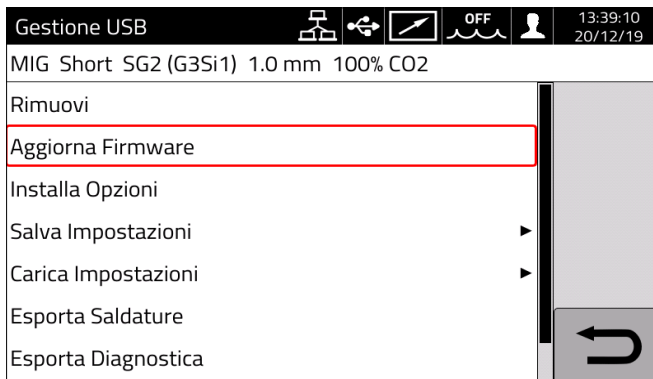In case a **remote control** is needed, the KINGSTAR offer two options:

> compact wired panel (art.452), with the possibility of adjusting the main welding parameters,

> generic tablet or Windows PC connected to the welding power source through its Ethernet port, either wired or **wireless** through any Wifi router (24Vdc power supply available from the power source by the kit art.451).
So it's also available a proprietary web-app with a **Service Panel** that provides **free of charge** some useful tools, including **Backup&Restore** and **Diagnostics**
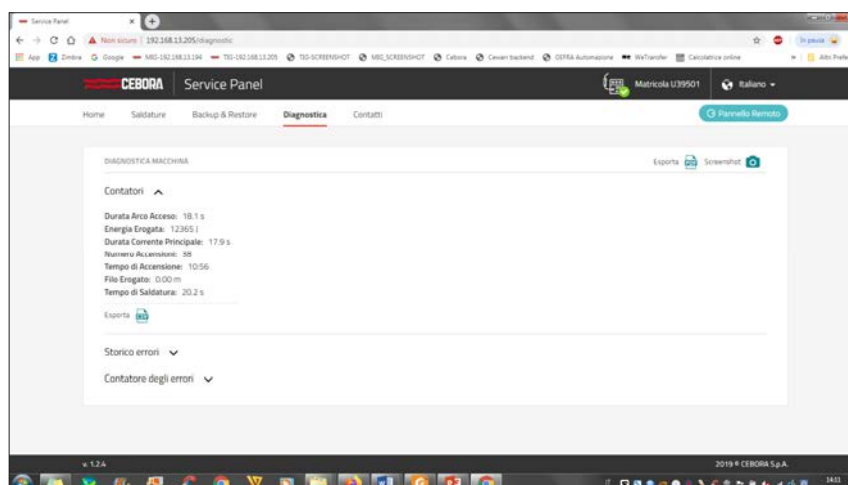
Two USB ports for a welding system always updated, quickly and easily, and a long-lasting investment able to grow over time together with your production activity.

A **software updating** system developed by Cebora that requires just a memory-stick and a few seconds to download from Cebora website the latest firmware version available and install it on your system, **free of charge.**

Gestione USB		13:39:10 20/12/19
MIG Short SG2 (G3Si1) 1.0 mm 100% CO2		
Rimuovi		
Aggiorna Firmware		
Installa Opzioni		
Salva Impostazioni	▶	
Carica Impostazioni	▶	
Esporta Saldature		
Esporta Diagnostica		

100 Jobs are available, where you can store the complete set of welding parameters for the different weldments to be performed.


Each Job is individually **renamable**, for a faster identification and correlation with the relevant work.

Moreover, working in **JOB Mode**, it is possible to enable the **run-time modification** from the PLC/Robot Controller of the main welding parameters stored in the jobs.

6
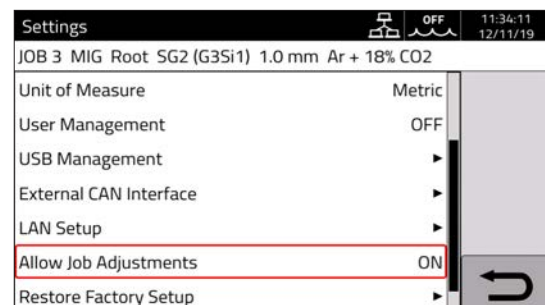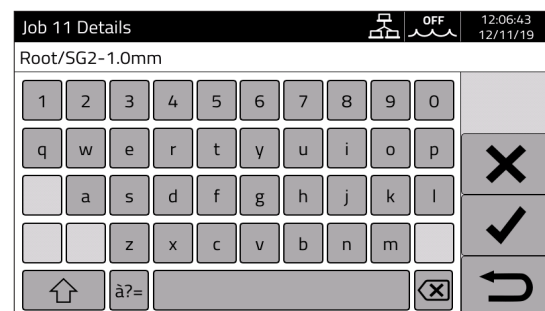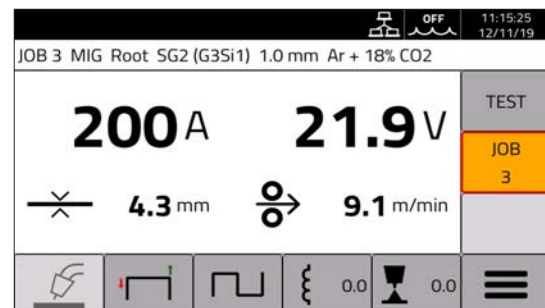
Multiple **choice of interfacing** to the CNC/Robot Controller. Both the conventional RAI **Analogic** interface (Art. 448) and the RDI **Digital** interface (Art. 428.xx) are available with the most known and used industrial fieldbus: DeviceNet, PROFIBUS, EtherCAT, EtherNet/IP.
If you rather prefer the CANopen, it is not needed an external Gateway because the KINGSTAR power source has such fieldbus directly embedded in it.
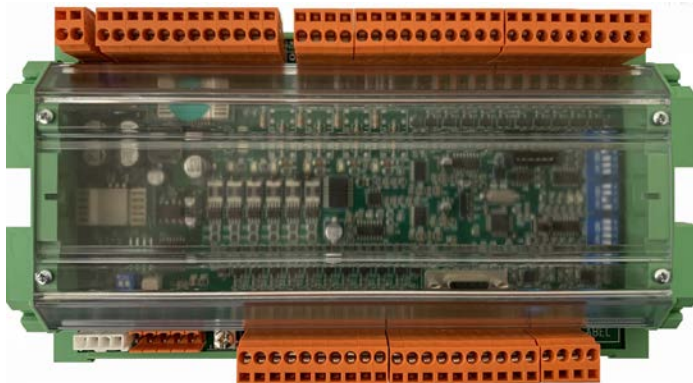
The **WF5 robot wire feeder** (art.1648) has been completely redesigned and engineered: extremely **compact** and **lightweight**, equipped with 4-roller aluminium wire feeder offering a practical coding of the rollers by coloured inserts. The new opening system for the access to the wire feeder allows the installation of this unit on any brand and model of robots, **conventional** or **hollow-wrist**, with **no mechanical interference.**

More than 150 synergic programs is the standard database of all the KINGSTAR power sources, also including curves for processes specifically developed to optimize the performance in automatic applications
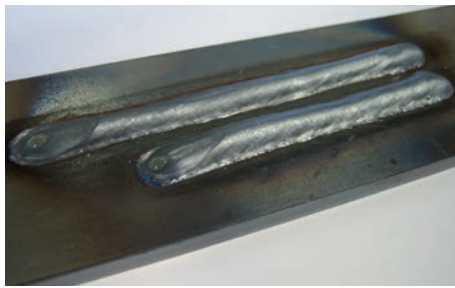
The **HD** -**H**igh **D**eposit- process, available both in short (standard) and pulsed (optional), allows to execute weldments at very high **speed** to offer higher and higher **yields** of the welding plants.
It is also suitable to perform special weldments, where you must operate with long stick-out due to the available space.

Root process, to use the MIG only both for **root** and **filling** pass or in case of operating conditions with a distance between the edges to be welded up to 5mm.

Time
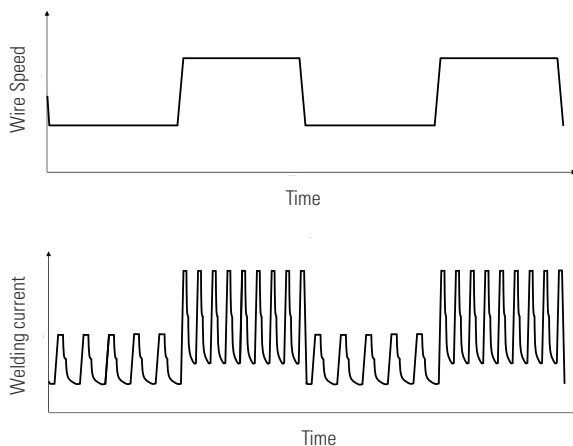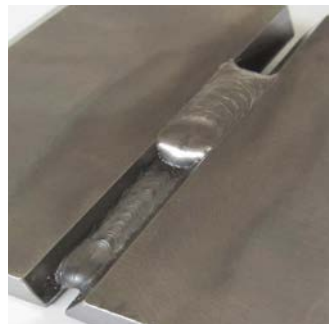
These highly productive processes are accompanied by the **Pulse** and **Double Pulse** ones (optional).

Time

SRS kit -**S**patter **R**eduction **S**ystem- (art.443): solution for short welding however ensuring the **total absence of spatters** and the **minimal amount of heat** in the welding pattern, even on stainless steel, greatly useful in case of thin plates.
Such low heat input is also essential in case of distance between the edges usually impossible to be managed with other welding processes.
Always the best performance, **whatever is the welding torch** used and its length.

Arc Voltage   Arc Current

Time (s)
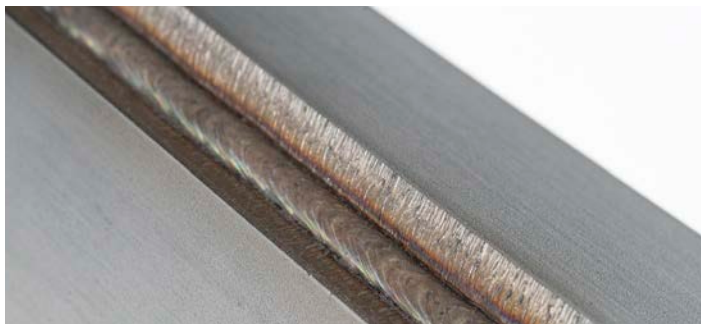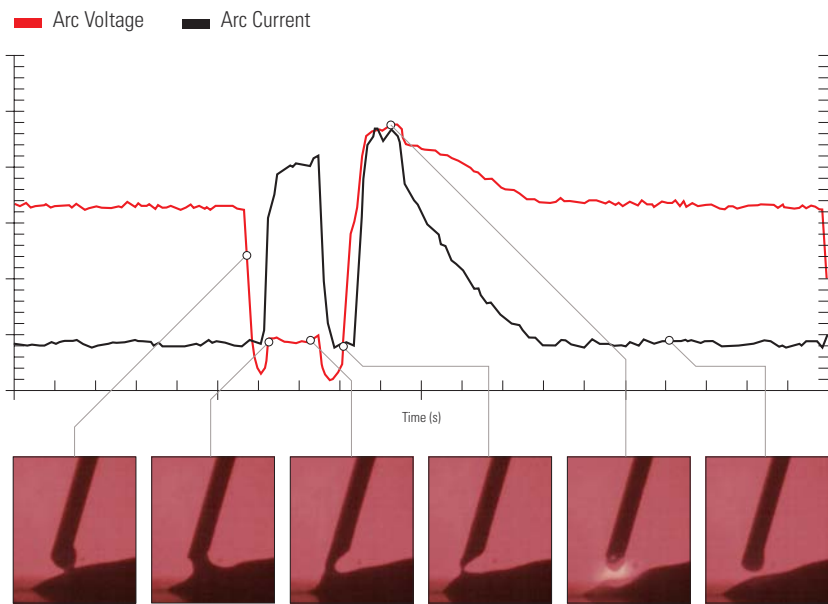
A package of **SWPS** -**S**tandard **W**elding **P**rocedures **S**pecifications- (art.808), made in accordance with the requirements of the UNI EN ISO 151612 standard, is available on request

Gas Flow Regulator kit (art.436):
it controls the flow of the welding gas keeping it constantly equal to the reference value set by the welder. This provides an optimal welding result and a considerable **reduction of gas consumption**, avoiding unnecessary waste coming from the use of conventional solenoid valves.

In addition, the KINGSTAR system equipped with this kit let you store different gas setting for each individual JOB, thus allowing to characterize every welding bead also regarding the relevant value of the gas flow.
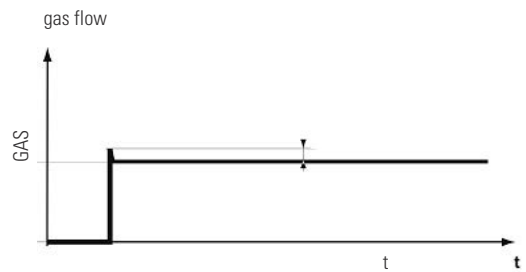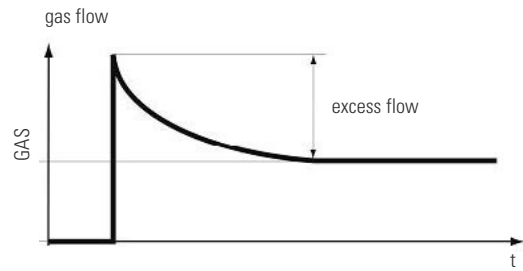
Gas Sensor kit (art.102)
useful when it is not necessary to guarantee the constant regulation of the gas flow but you simply want to **monitor** its presence and **stop** the welding process in case of interruption or reduction of the gas supply below a user configurable pressure value

Push-Pull Driver kit (art.447):
a completely new kit for push-pull torches, based on a full-bridge switching driver equipped with a **self-calibration** system that ensures its perfect synchronization with the main wire feeder unit, for any torch and for any welding process, even Double Pulse

Emergency + Varc kit (art.449):
it handles the input signal coming from the **Emergency Stop** button according to the EN954-1 category 3 international standard.

Robot Analyzer kit (art.125.01):
when the **real-time monitoring of the communication** between the welding power source and the CNC/Robot Controller is required, during either the integration of the welding system or its normal operation, We offer a "sniffer" allowing to achieve that in an extremely intuitive and comrehensive way.

It is a kit that allows to intercept the complete flow of signals and data in both directions and makes it available both graphically and analytically on a Windows PC.

Welding Data: thanks to the new hardware platform of the KINGSTAR line and the powerful software for the welding process management, it is possible to automatically save the main welding parameters of **thousands of welding seams** into the power source memory (…**free of charge**). These data can be periodically downloaded to a memory stick through the USB port and then analyzed or simply stored as support documentation for the Quality Control process of the production.

Weldments													
id	jobId	Orario di Inizio	Tempo di Saldatura [s]	Durata Arco Acceso [s]	Corrente Media [A]	Tensione Media [V]	Energia Erogata [J]	Velocità Filo [m/min]	Corrente Motore [A]	Filo Erogato [m]	Filo Erogato [g]	Gas Erogato [s]	Gas Erogato [l]
9		11-10-19 13:52:54	3.9	0.7	178	11.0	1883	4.2	0.1	0.05	0	3.9	0.7
8		11-10-19 13:46:09	4.1	1.0	304	18.9	6954	10.8	0.2	0.19	1	4.1	0.7
7		11-10-19 13:46:06	2.8	1.0	312	19.3	7331	11.3	0.2	0.20	1	2.7	0.5
6		11-10-19 13:46:01	4.1	1.0	303	18.8	6976	10.7	0.2	0.19	1	4.1	0.7
5		11-10-19 13:45:58	2.7	1.0	295	18.2	6559	10.1	0.2	0.18	1	2.7	0.5
4		11-10-19 13:45:45	4.1	1.0	177	10.9	2454	3.5	0.1	0.06	0	4.1	0.7
3		11-10-19 13:45:43	2.5	1.0	177	10.9	2453	3.5	0.1	0.06	0	2.5	0.4
2		11-10-19 13:45:40	2.2	1.0	177	10.8	2456	3.5	0.2	0.06	0	2.1	0.3
1		11-10-19 13:38:42	3.9	0.7	270	16.7	3974	9.9	0.3	0.12	0	3.9	0.6

It is possible to request the **Instument Calibration Certificate** (art.803) for the welding power source when ordering the KINGSTAR welding system.
According to the EN 50504-2008 standard, this certificate ensures the correspondence to the nominal data of the welding parameters values measured by the instruments of the power source, mandatory prerequisite to secure a reliable Quality Control of the production

![CEBORA welding&cutting]

art. 372.80

KINGSTAR 400 TS ROBOT

PFC
EN 61000-3-12

Three phase input	**400 V +15% / -20%** **50/60 Hz**
Fuse rating (slow blow)	**20 A**
Input power	**18,8 kVA 40%** **16,4 kVA 60%** **14,2 kVA 100%**
Current adjustment range	**10 A - 400 A**
Duty Cycle (10 min. 40°C) According to IEC 60974-1	**400 A 40%** **370 A 60%** **340 A 100%**
Stepless regulation	**Electronic**
Protection class	**IP 23 S**
Weight	**74 kg**
Dimensions (WxLxH)	**410 x 860 x 820**

art. 374.80

KINGSTAR 520 TS ROBOT

PFC
EN 61000-3-12

Three phase input	**400 V +15% / -20%** **50/60 Hz**
Fuse rating (slow blow)	**32 A**
Input power	**25,8 kVA 40%** **23,7 kVA 60%** **20,7 kVA 100%**
Current adjustment range	**10 A - 520 A**
Duty Cycle (10 min. 40°C) According to IEC 60974-1	**500 A 40%** **470 A 60%** **440 A 100%**
Stepless regulation	**Electronic**
Protection class	**IP 23 S**
Weight	**95 kg**
Dimensions (WxLxH))	**410 x 860 x 820**

MIG/MAG robot system layout
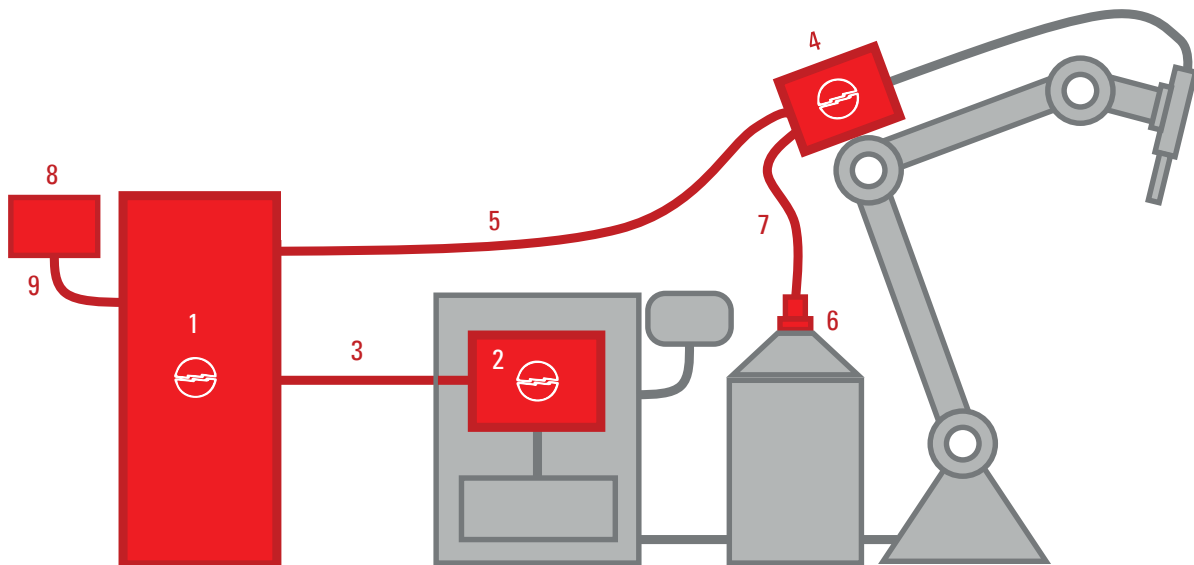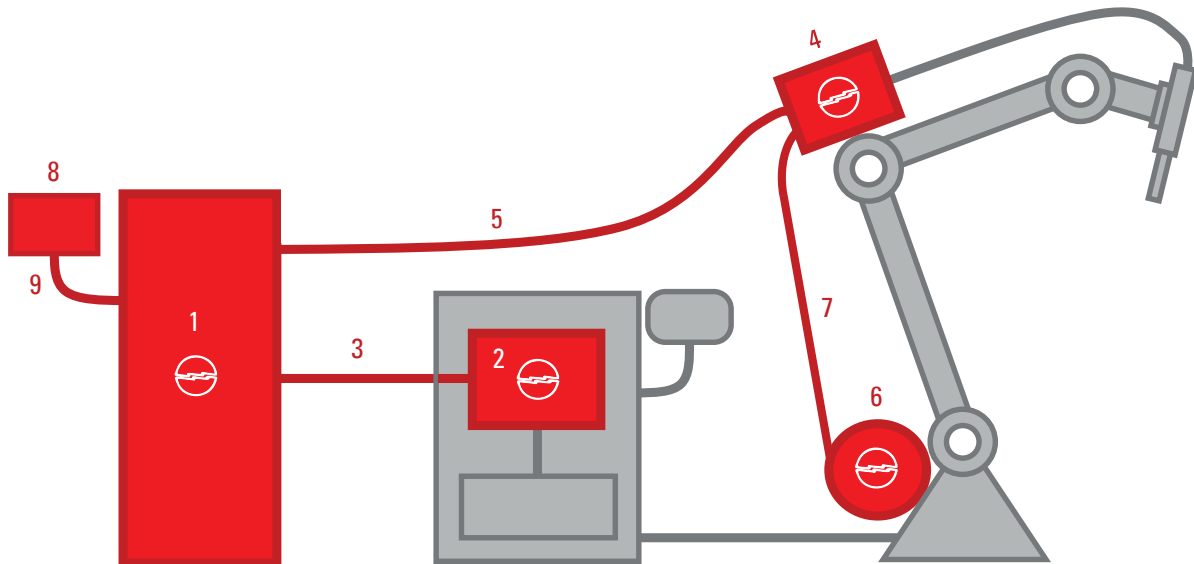
Legenda

1	Welding power source	**4**	Robot wire feeder	**7**	Welding wire liner
2	Robot interface	**5**	Connection Welding power source-Robot wire feeder	**8**	Remote control panel
3	Connection Welding power source-Robot interface	**6**	Welding wire spool holder/quick fitting	**9**	Connection Welding power source-Remote control panel

MIG/MAG Robot system components

Pos. 1	Welding Welding power source (#)
art. 372.80	KINGSTAR 400 TS ROBOT
art. 374.80	KINGSTAR 520 TS ROBOT

Pos. 2	Robot interface
art. 448	RAI analogic robot interface kit
art. 428.01	RDI PROFIBUS robot interface kit
art. 428.02	RDI DeviceNet robot interface kit
art. 428.03	RDI EtherCAT robot interface kit
art. 428.04	RDI EtherNet/IP robot interface kit

Pos. 3	Connection Welding power source-Robot interface
art. 2063.00	Connection Welding power source-Robot interface - 5m
art. 2063.10	Connection Welding power source-Robot interface - 10m

Pos. 4	Robot wire feeder
art. 1648	WF5 robot wire feeder

Pos. 5	Connection Welding power source-Robot wire feeder
art. 2061.00	5 m welding power source-robot interface connection
art. 2061.10	10 m welding power source-robot interface connection

(#) Available on request versions with three-phase autotransformer (200) - 220 - 440 - 480 V 50/60 Hz

MIG/MAG Robot system accessories

Pos. 6	Welding wire spool holder/quick fitting
art. 121	15 kg spool holder with fixing bracket
art. 173	Quick fitting for welding bulk drum system

Pos. 7	Welding wire liner
art. 1935.00	1,6 m welding wire liner for Robot wire feeder
art. 1935.01	2,2 m welding wire liner for Robot wire feeder

Pos. 8	Remote control panel
art. 452	Remote control panel

Pos. 9	Connection Welding power source-Remote control panel
art. 2065.00	5 m welding power source-remote control panel connection
art. 2065.10	10 m welding power source-remote control panel connection

Other accessories & kit

art. 1683	GRV12 cooling unit, optional for welding power source art.372.80
art. 231.89	Upgrade Pulse process (*)
art. 233.89	Upgrade Double Level process (*)
art. 102	Gas sensor kit
art. 436	Gas flow regulator kit
art. 443	SRS kit
art. 447	PUSH-PULL driver kit (42 Vdc)
art. 449	Emergency + Varc kit
art. 451	24Vdc power supply for external Wifi router
art. 2054	CAN2 connection for CANopen embedded robot interface
art. 803	Instrument welding power source calibration certificate.
art. 808	SWPS – Standard Welding Procedure Specifications
art. 125.01	Robot Analyzer kit

(*) The Double Pulse process is obtained by activating both the Pulse (art. 231) and the Double Level (art 233) optional processes

CEBORA S.p.A - Via A. Costa, 24 - 40057 Cadriano (BO) - Italy
Tel. +39.051.765.000 - Fax +39.051.765.222
www.cebora.it
e-mail: cebora@cebora.it

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