FLEXFAB® COBOT-E

COLLABORATIVE ROBOT WELDING SOLUTION ENABLED BYSIMPLIFIED PROGRAMMING

Nowadays, it's getting harder and harder for manufacturers to recruit skilled welding workers. What's more, many manufacturers perceive automation as a daunting task because it takes a significant amount of time and money to automate their operation. At the same time, more and more workshops require mobility, which can't be met by traditional welding work cell that covers a large floor area and demands safety actions.

The FLEXFAB® Cobot-E robotic welding system adopts simplified programming based on teach tablet and welding torch. Designed for industrial applications, the FLEXFAB® Cobot-E system allows you to increase productivity with highly productive Lincoln Electric welding program.

Especially designed for »

- » Hybrid workshop
- » Repairing and remanufacturing
- » Repairing and restoring part surface
- » Roof and bridge trusses
- » Mechanical contractors and plumbing workshops
- » Agricultural equipment
- » Steel structure manufacturers and metal maintenance workshops
- » Training and Education services

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LINCOLN® ELECTRIC AUTOMATION

Flexfab Cobot-E welding system can be easily moved to welding parts and work with operators in a collaborative and safe manner.

What's included:

» JAKA® ZU 12 with teach tablet
(If you need other robot, please contact sales representative of Lincoln Electric.)

» Integrated press-button welding torch

» DIGIWAVE® DVR 500

» DIGIWAVE® III 520 R

» Fixed welding work bench

» Heavy-duty casters

» Stands

» Drawer and tablet holder

Advantages :

Higher Productivity

» Using cobots which can cooperate with your operators

Simplifying Programming

» Programming is simplified & based on the icon

Available to Teach with Welding Torch

» The system of JAKA® ZU 12 is specifically designed for allleveloperatorsof robot application

Flexible Working Area

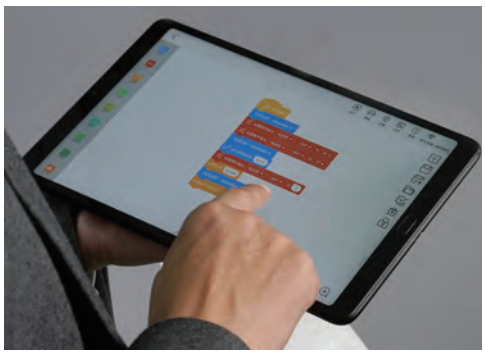
» You can move cobots to any position to work with this system which is adaptable and easy to move. To achieve the welding automation in workshop with higher flexibility &freedom.

Small Floor Space

» The system is movable and flexible with small floor space in workshop

Drag Teaching

- Parallel movementand angle adjustment are possible free-drive teaching separately
- The value of drag force can be set independently,leading better using experience
- With end threshold setting,the collision detection is safer



Graphic & Drag Programming

- The graphic programming is simple and intuitive with no using threshold, so everyone can be engineer
- Drag teaching can record the position rapidly , while trajectory recurrence is supported. They highly promote the efficiency of programming and reducing the cost of hiring professional programmer

AKA Zu® 12 Cobot

Safe Human-robot Collaboration

JAKA cobots are designed to work safely with humans-no need for a safety fence-thanks to collision detection, enabled by a built-in torque feedback module. Users may choose even the lightest of bumps to cause the cobot to stop, to avoid harm.

No Teaching Pendant

Wireless JAKA collaborative robot is easy to use with JAKA APP, removing the need for traditional teaching pendant.No more wires attached! Enjoy a clean and safe space with JAKA cobots.

JAKA Zu® 12 Cobot

- **Higher Payload:** self-weight 41kg, payload 12kg,working radius 1327mm;
- **Flexible Arrangement:** change the way/position of installation easily,lower demand for installation environment;
- **Enable More:** replace heavy physical work, more industry blankness filled up.

Maximum payload	Weight	Working radius	Repeatability	Number of axis	Programming	Teaching pendant	Collaborative operation
12kg	41kg	1327mm	±0.03mm	6	Graphic programming, drag programming	PC,mobile (PAD/mobile)	GB11291.1-2011

DIGIWAVE III 520-R

Lincoln Electric DIGIWAVE III 520-R is widely applied in a range of industries such as new energy automotive, infrastructure, construction, rail transport, aluminum truck. In addition to Lincoln Electric proprietary welding process, the welding package adopts advanced inverter power source and is compatible with mainstream robots. As a result, excellent waveform control and welding performance can be delivered.

Technical Advantages

- Inverter technology that lightens the power source ensures easy mobility.
- Original advanced aluminum welding process.
- Less power consumption, higher efficiency, higher power factor(0.94).
- Ensure high productivity with high duty cycle which is 100% at 450A.
- Equipped with communication interfaces for all levels of automation.
- Enable seamless switch among different communication modes. It takes a few simple steps to set up communication.
- Reserve port for software upgrading in order to gain the latest welding technology.
- Limit access to power source to avoid mis-operation.
- Modular design makes maintenance easier.

Excellent welding performance

- Protection level of IP23S allows the machine to withstand harsh environment.
- The "cloning" feature allows you to keep and duplicate an exact backup of your Wave III installations. Thanks to this function, your production can be ensured.
- 100 welding procedures can be created and managed. Unimpeded switch can be ensured.
- 200 centralized procedures are preset.
- Customers are allowed to create 50 centralized procedures.
- Production monitoring ensures consistent welding bead.

Applicable industries

- New energy automotive Infrastructure and construction
- Rail transportation and aluminum truck

DIGIWAVE III 520-R

Primary side

	Input voltage	Frequency	Effective current	Max current	Circuit breaker
DIGIWAVE III 520-R	400 V	50/60Hz	28,5A	33,9A	32 A Gg

Max apparent power	Max active power	Max apparent power	Max standby power(MIG)	Max power factor(MIG)
23,8 KVA	22,4 KW	29 W	89	0.94

Secondary side

	No-load voltage(MIG)	Output range	100% duty cycle at 40°C	100% duty cycle at 60°C	Duty cycle at 40°C with max current
DIGIWAVE III 520-R	73 V	14,8V/39V 15A/500A	450A	500A	60%

Others

	Dimensions	Weight	Working temperature	Storage temperature	Torch connector	Protection level	Isolation level	Standard
DIGIWAVE III 520-R	720x295x525	40kg	-10°C/+40°C	-20°C/+55°C	European	IP23	H	60974-1& 60974-10

Main welding processes

Process	Applicable materials	Preferred applications	Advantages	Waveforms
Pulse	All metallic materials	Sheet metal, all-position aluminum sheet metal in particular.	All position, low spatter	
Spray	Aluminum	Porosity-resistant application. Untreated aluminum materials.	Reduced pores and increased penetration	
Advanced pulse-on-pulse	All materials	Good for bead formation. No weaving in vertical position. Applicable for flux cored wire.	Low heat input. Appearance looks alike with TIG bead. Vertical up welding.	

Product information

Name	Product number	Dimensions (Length*Width*Height) Millimeter	Weight KG	Welding bench Millimeter	Payload of welding bench
FLEXFAB® Cobot-E	undetermined	1550*825*1750	500	750*500	230

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