

OmniVance Collaborative Arc Welding Cell

Robotic welding within everyone's reach



About the solution

The constantly growing need for production flexibility, and the shortage of expert welders are putting several small and medium-sized manufacturing companies in difficulty when they have low volume/high mix production with high quality standards to be maintained.

ABB, which has always been focused to the needs of the market and customers, has given a concrete response to this problem, with the development of an easy-to-use and flexible welding cobot solution, which does not require expert robotic operators for programming and tuning it.

Drawing on decades of experience in arc welding applications, ABB has combined the versatility of the GoFa collaborative robot with the consolidated hardware and software functionality commonly used on all ABB industrial welding robot to create a collaborative welding solution.

The solution includes our innovative **Easy Teach Device** which allows any operator, even those not trained in robotics, to quickly create and execute automatic welding.

With the Easy Teach Device, users can automatically generate the programming code by simply guiding the robot's arm along the welding path, using features of the powerful ABB ArcWare software, dedicated to welding application.

Boost productivity by automate repetitive welding tasks, with ease! The OmniVance Collaborative Arc Welding Cell is the first of its kind, fully integrated solution that enables first time users to easily automate welding sequences within minutes with the revolutionary Easy Teach Device

Benefits



Made for Welders: With the innovative Easy Teach Device, users no longer need hours of training to use the device, making it ideal for high mix, low volume tasks



Speed: Welding sequences are automatically generated on the teach pendant, so users can create and execute welding sequences in less than 30 seconds, saving nearly 70 percent of programming time.



Guaranteed Quality: With GoFa's unmatched position accuracy and superior lead-through programming, users are assured of high-quality welding, every time.



Simplifying operations: All major operations are achieved with the easy-to-use device on the robot arm, making it simple and intuitive to use.



Plug and play: Complete with cobot and CE certification, the cell is quick to deploy, saving engineering time, effort and costs with guaranteed results.



Certification: The OmniVance Collaborative Arc Welding Cells are CE marked by ABB and allow the operator to work in a safe environment

Variants

OmniVance Collaborative Arc Welding Cell

LITE

CE



During manual loading and unloading of work-pieces



Protective fences drawn up during operations

Designed with a single table, this cell is best suited for companies that need production flexibility with small footprint.

The cell includes:

- Cobot GoFa 5 (5 kg payload, 950 mm reach)
- ABB ArcWare application software
- ABB Wizard HMI interface
- Easy Teach Device
- Cobot protective jacket – axis 4-5-6
- Welding Power Source, located on a pull-out tray for easy maintenance and accessibility
- Welding torch and dressing
- Welding table - 1500x1000 mm – diam 16 mm
150 Kg payload
- Side protective panels with safety sensor
- Pull-out tray, under the welding table, for easy cleaning
- Start and stop buttons
- EC Declaration of conformity

Width	Depth	Height	Weight
1670	1480	2000	550 kg

The cell is pre-tested in ABB and delivered ready to weld

Options and characteristics:

Item	Options/Description
Power Source	Gas cooled, liquid cooled; compact or standard version
Welding torch	Robotic or manual torch*
Fume extraction	Manual fume extraction system as option
Clamping kit	Minimum set of clamping tools

*Valid only for a specific power source brand

OmniVance Collaborative Arc Welding Cell STANDARD

CE



Designed with a double manual rotary table, it is the best solution for companies that need production flexibility while ensuring high productivity.

The cell includes:

- Cobot GoFa 5 (5 kg payload, 950 mm reach)
- ABB ArcWare - application software
- ABB Wizard HMI interface
- Easy Teach Device
- Cobot protective jacket – axis 4-5-6
- Welding Power Source
- Welding torch and dressing
- Double welding table - 1200x800 mm each
40 kg payload
- Roll-up curtain welding protection with
safety sensor
- Fume extraction sensor
- Start and stop buttons
- EC Declaration of conformity

Width	Depth	Height	Weight
2500	2860	2100	2000 kg

The cell is pre-tested in ABB and delivered ready to weld

Options and characteristics:

Item	Options/Description
Power Source	Gas cooled or liquid cooled; standard version
Welding torch	Robotic torch and wire feeder
Video-camera	System with video-camera to monitor the cobot welding area
Clamping kit	Minimum set of clamping tools

Key Cell Components

Robot – GoFa IRB 15000



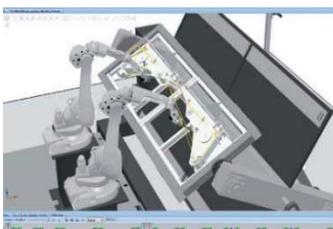
The lightweight, easy to setup ABB GoFa collaborative robot brings increased value to every cobot welding application. GoFa's superior lead-through functionality makes it easier for first-time users to program the application and teach welding angles and positions to the robot by simply grabbing the robot and moving it along the weld path.

Easy Teach Device



The Easy Teach Device is a revolutionary hardware interface between the robot and users, enabling complete non-robot experts to effortlessly program welding sequences without the need to interact with the FlexPendant. The Easy Teach Device can be installed on the CRB 15000 -GoFa, creating a truly collaborative welding experience for all users.

Arc Ware



The ABB application software includes full range of functions for arc welding, such as advanced process control, program verification with welding inhibition, automatic re-trigger in case of error, hunting, weaving etc., to improve productivity, while reducing risks.

Wizard Easy Programming



Wizard Easy Programming is an easy and intuitive way of programming ABB robots without requiring knowledge of RAPID programming language. With its graphical, no code feature, users can drag and drop blocks to create robot program. The intuitive interface of Wizard Easy Programming makes it possible for users to operate the robot without needing programming skills or special training.