

OmniVance™ FlexArc® Compact Welding cell

The fast and flexible pre-engineered solution for arc welding applications



OmniVance™ FlexArc® Compact is a scalable, pre-engineered arc welding solution with a space-saving footprint, offering the flexibility and simplicity to enhance performance by adding extra welding robots, a digital layer and Autonomous Mobile Robots (AMR) to boost productivity

Fully integrated with pre-engineered components, the OmniVance FlexArc Compact cell offers a scalable, ready-to-deploy solution for a range of arc welding applications. The smallest cell in its class, the FlexArc Compact can be expanded with added equipment without using extra floor space, increasing revenue per square meter.

Key benefits:

- **Simplicity:** The FlexArc Compact cell is pre-tested with components including all operational and safety equipment built in. This reduces the risk of incompatibility, improves time to market, and makes the FlexArc Compact more affordable than custom-made solutions.

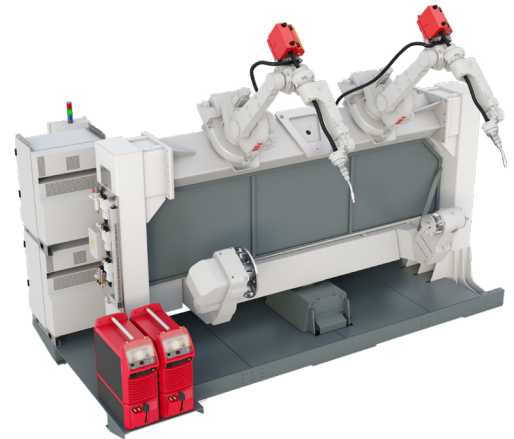
The simplified design of the cell makes it easier to install and commission and simplifies modular arrangement. Placing the robot above the positioner maximizes the working envelope and achieves substantial space savings, enabling customers to optimize the use of their factory floor space. The cell's design also makes it possible to add up to four robots to boost productivity without having to make structural changes.

- **Digital Layer:** Drawing on more than two decades of domain expertise ABB offers customers the option to enhance their FlexArc Compact with a FlexArc software suite that enables teams to collect and analyze data which can be used to make better business decisions by giving a complete overview of overall equipment efficiency (OEE) and measuring performance against key KPIs.
- **Flexible automation:** FlexArc Compact cell is ready to be augmented with AMRs to automate manufacturing logistics, improving speed and productivity.

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FlexArc Compact cell – technical specification

Cell Width	4.335 mm
Cell Depth	4.046 mm
Cell Height	3.350 mm
Number of robots	1-2
Robot	IRB 1660ID
Controller	IRC5
Positioner	IRBP R-1000 D1200 L2000
Payload	1.000 kg
Tool length	2.000 mm
Tool swing diameter	1.200 mm
Process gear options	Fronius, Lincoln
Welding torch options	Fronius, Dinse, Binzel, Lincoln
Torch cleaner	ABB TC2013
BullsEye	ABB
Roof	above the welding zone only
Safety equipment	Light curtains + Rolling Door
PLC control options	B&R or Siemens
Power supply	3×400 V
Cable	5×16 mm
Fuse	3×63 A



Digitally enabled cell from beginning

- **PLC options**
 - Base version without PLC, only B&R safety PLC
 - B&R PLC + safety PLC
 - Siemens 15xx PLC + Safety PLC
- **Troubleshooting of cell**
 - User friendly interface for operators, reduction of service calls- Sequence visualizer
 - show current pending step in PLC
- **Remote access**
 - Connection to robot and PLC
 - WiFi, Ethernet, optionally USB modem and SIM card
 - Not necessary to travel for troubleshooting
- **Digitalization with B&R EDGE**
 - OEE, dashboards, sending of data to higher systems

