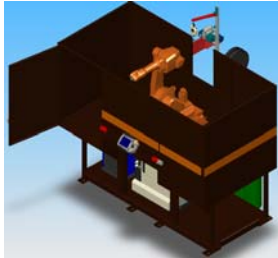


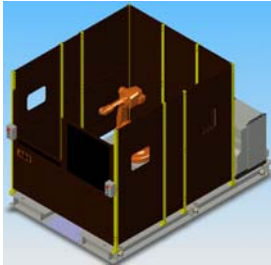


# FlexArc<sup>®</sup> Family of Robotic Welding Cells

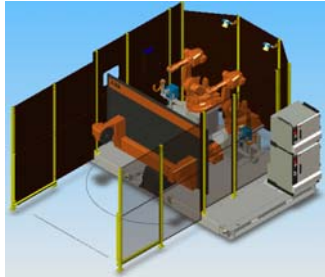
Main Applications: Arc Welding



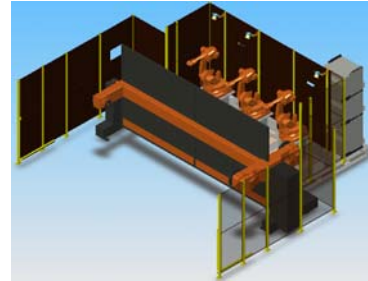
Compact



U2



250R Multi-Move



750K Multi-Move

## A complete range of fully integrated, standardized welding cells

FlexArc robotic welding cells are complete robot systems available in several flexible and versatile, standard modular packages. Cells are delivered ready to weld.

All cells feature:

- One IRB 1600 or multiple IRB1600 or IRB2400s equipped with the IRC 5 controller
- Positioners (C,R,K or B) suited to the application
- Perimeter guarding which complies with ANSI/RIA 15.06/1999
- Man/Machine (HMI) Interface
- Welding power supply
- Robotic welding torch (air cooled or water cooled)
- Robotic torch cleaner/dresser
- Metal mounting base (transportable with fork lift pockets)
- Operator present sensing device
- Cables are completely integrated into the base of the cell
- Cell door interlock device
- Safety: Light curtain/Area scanners/Roll up door  
Compact and U cells have mechanical barriers
- Optional equipment: BullsEye®, SmartTac, Fume Extraction, Thru-Arc Seam Tracking, RobotStudio™, Virtual FlexArc™, Wire Cutter

Composed entirely of modular equipment, FlexArc production cells can be used independently or combined to form mini-assembly zones, an assembly line or a complete workshop.

### IRC 5 Robot Controller and FlexPendant™

The IRC 5 is ABB's fifth generation robot controller and it has set new standards with its modular concept and teach pendant unit. The modularity of the IRC 5 is a major step forward in robot controls with a logical split of functions into control and axis drive cabinets. Each module is housed in its own cabinet with an identical footprint so they may be on the mounting base for minimal floor usage.

The IRC 5 has the ability to control multiple robots with the potential to reduce costs, improve quality, increase productivity and expand robot applications.

The FlexPendant is world class with its intuitive windows layout and color touch-screen operation.

### Software Tools

ABB offers a range of software tools to improve the design, functionality and production performance of our FlexArc systems. These tools will assist operators, plant managers and production personnel to simplify and utilize the features of their arc welding system while controlling production throughput and robot uptime.

### Flexibility, Reusability and High Productivity

If your new production parts are modified, added or specifications change, fixtures can be changed or modified on one station or both. The robot can either weld new or different parts and the flexibility of the cell is maximized.

FlexArc cells are standard, pre-engineered solutions designed to permit quick, efficient set-up so you are running production in minutes instead of days.

FlexArc cells have produced millions of parts since their introduction and are an industry accepted and proven solution.

From simple, modularized cells with one or two positioners to complete systems, ABB has a standard package to fit every need or ABB will customize cells or systems to meet your manufacturing requirements.



# FlexArc® Family of Robotic Welding Cells

## Technical Data

FlexArc® Model	Robot Type	Multi Move	Maximum Part and Fixture Dimensions	Max. Total Weight of Part and Fixture per station	Reposition Part and Fixture?
<b>FlexArc® Compact 2</b>	IRB 1600	NA	2 - 32" Width x 52" Length	550, 1100 lbs. (250, 500 kg)	No-Table
<b>FlexArc® U1</b>	<b>IRB 1600</b>	<b>NA</b>	<b>36" w. x 84" L - Table</b> <b>36" dia. x 49" L - Platter</b>	<b>550, 1100 lbs.</b> <b>(250, 500 kg)</b>	<b>No-Table</b> <b>Yes-Platter</b>
<b>FlexArc® U2</b>	IRB 1600	NA	2 - 26" w x 40" L - Tables 2 - 36" dia. x 40" L - Platters	550, 1100 lbs. (250, 500 kg)	No-Table Yes-Platter
<b>FlexArc® 500C</b>	IRB 1600	No	40" w x 39" L (1005mm x 1000mm)	1100 lbs. (500 kg)	No
<b>FlexArc® 500C MultiMove™</b>	(2) IRB 1600	Yes	40" w. x 39" L (1005mm x 1000mm) 47" w. x 39" L (1200mm x 1000mm)	1100 lbs. (500 kg)	No
<b>FlexArc® 250R</b>	(1) IRB 1600	No	39" dia. x 63" L (1000mm x 1600mm)	550 lbs. (250 kg)	Yes
<b>FlexArc® 250R MultiMove</b>	(2) IRB 1600	Yes			
<b>FlexArc® 500R</b>	IRB 1600 or IRB 2400L	No	39" dia. x 63" or 79" L (1000mm x 1600/2000mm) 47" w. x 63" or 79" L (1200mm x 1600/2000mm)	1100 lbs (500 kg)	Yes
<b>FlexArc® 500R MultiMove</b>	(2) IRB 1600 or (2) IRB 2400L	Yes			
<b>FlexArc® 250B</b>	IRB 1600 or IRB 2400L	No	39" dia. x 35" L (1000mm x 900mm)	550 lbs. (250 kg)	Yes
<b>FlexArc® 500B-750B</b>	IRB 2400L	No	57" dia. x 39" L (1450mm x 1000mm)	1100 lbs (500 kg) 1650 lbs. (750 kg)	Yes
<b>FlexArc® 750R</b>	IRB 1600 or IRB 2400L	No	39" w. x 63" or 79" L (1000mm x 1600/2000mm) 47" w. x 63" or 79" L (1200mm x 1600/2000mm)	1650 lbs. (750 kg)	Yes
<b>FlexArc® 750R MultiMove</b>	(2) IRB 1600 or (2) IRB 2400	Yes			
<b>FlexArc® 250K</b>	IRB 1600 or IRB 2400	No	39" & 47" dia. x 98" L (1000/1200mm x 2500mm)	550 lbs (250 kg)	Yes
<b>FlexArc® 250K MultiMove</b>	(2) RB 1600 or (2) IRB 2400	Yes			
<b>FlexArc® 500K</b>	IRB 1600 or IRB 2400	No	39", 47" or 55" dia. (1000/1200/1400mm) x 63", 79", 98", 124", 138", 157" L (1600/2000/2500/3150/3500/4000mm)	1100 lbs. (500 kg)	Yes
<b>FlexArc® 500K MultiMove</b>	(2) IRB 1600 or (2) IRB 2400	Yes			
<b>FlexArc® 750K</b>	IRB 1600 or IRB 2400	No	39", 47" or 55" dia. (1000/1200/1400mm) x 63", 79", 98", 124", 138", 157" L (1600/2000/2500/3150/3500/400mm)	1650 lbs (750 kg)	Yes
<b>FlexArc® 750K MultiMove</b>	(2) IRB 1600 or (2) IRB 2400	Yes			
	(3) IRB 1600 or (3) IRB 2400	Yes			