

## FlexArc - choose the configuration to match your needs

### Standard Models

	Robot	Positioner	Payload	Length per side in MM	Distance (between head and tailstock)	Station footprint (L x W x H) with light curtains	Station footprint (L x W x H) with roll-down door
FlexArc Single	1 IRB 1600	IRBP 500C	500 Kg			5300 x 3600 x 2500	4000 x 3600 x 2700
500C Multimove	2 IRB 1600	IRBP 500C	500 Kg			5300 x 3600 x 2500	4000 x 3600 x 2700
FlexArc Single	1 IRB 1600	IRBP 250R	250 Kg	1600	1000	5300 x 3600 x 2500	4000 x 3700 x 2700
250R Multimove	2 IRB 1600	IRBP 250R	250 Kg	1600	1000	5300 x 3600 x 2500	4000 x 3700 x 2700
FlexArc Single	1 IRB 1600	IRBP 500R	500 Kg	2000	1000 / 1200	6700 x 3700 x 2500	5600 x 3700 x 2700
500R Multimove	2 IRB 1600	IRBP 500R	500 Kg	2000	1000 / 1200	6700 x 3700 x 2500	5600 x 3700 x 2700
FlexArc Single	1 IRB 1600	IRBP 750R	750 Kg	2000	1000 / 1200	6700 x 3700 x 2500	5600 x 3700 x 2700
750R Multimove	2 IRB 1600	IRBP 750R	750 Kg	2000	1000 / 1200	6700 x 3700 x 2500	5600 x 3700 x 2700
FlexArc Single	1 IRB 1600	IRBP 250K	250 Kg	2500	1000	5500 x 4300 x 2500	4300 x 4300 x 2700
250K Multimove	2 IRB 1600	IRBP 250K	250 Kg	2500	1000	5500 x 4300 x 2500	4300 x 4300 x 2700
FlexArc Single	1 IRB 1600	IRBP 500K	500 Kg	2500 / 3150	1000 / 1200	6000 x 5300 x 3000	4800 x 5300 x 3000
500K Multimove	2 IRB 1600	IRBP 500K	500 Kg	2500 / 3150	1000 / 1200	6000 x 5300 x 3000	4800 x 5300 x 3000
FlexArc Single	1 IRB 1600	IRBP 750K	750 Kg	2500 / 3150	1000 / 1200	6000 x 5300 x 3000	4800 x 5300 x 3000
750K Multimove	2 IRB 1600	IRBP 750K	750 Kg	2500 / 3150	1000 / 1200	6000 x 5300 x 3000	4800 x 5300 x 3000

### Standard Equipment

Standard Equipment	Optional Equipment	
Platform, Fencing with torch service pocket, Service door, Robots, Pedestals, Positioner, Controller, Power distribution panel	<b>Robot</b>	<b>Safety</b>
	IRB 2400L	Horizontal Light Curtains
		Albany roll-down door
Power Source Fronius TS 4000, air cooled	<b>Power Sources</b>	
Welding Torch Fronius MTG 4000/22, air cooled	Fronius TPS 4000, water cooled	<b>Tool Service</b>
Operator Panel	Fronius TPS 4000 Aluminium	Torch Service Center
Safety equipment PNOZ Multi including Vertical Light Light Curtains	Fronius CMT 3200R/4000R	Torch Cleaner
	ABB MigRob 500/A316E	BullsEye TCP Calibration
	ESAB Aristo Mig	Wire Cutter
<b>Software</b>		
FlexPendant Operator Interface	<b>Welding Torches</b>	<b>Seam Finding</b>
Welding Error Handler	Fronius Robocata 5000/22, water cooled	SmarTac
Production Monitoring	Tough Gun 500/22, air cooled	
Production Manager	ABB PSF 315, air cooled	<b>Fume extraction hoods</b>
Navigator	ABB PKI 500, water cooled	Coverage of welding station only
		Coverage of welding station and load/unload station

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## FlexArc - Robotic Arc Welding Cells

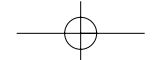
Cost effective modular solutions to match your needs

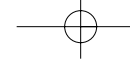


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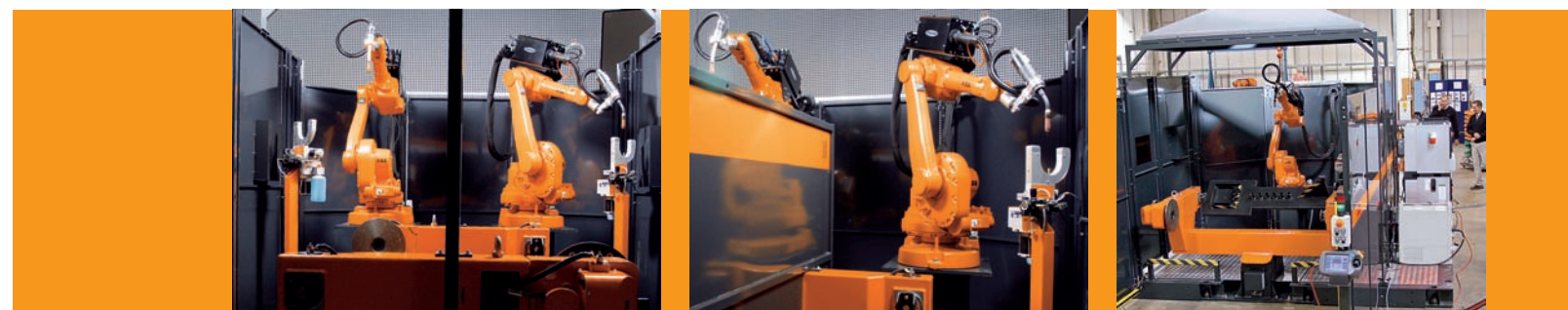
www.abb.com/robotics





## A new dimension in robotics arc welding

Optimal productivity calls for equipment that combines effective operation with maximum cost-efficiency. Modular, standardized robot cells are an established way of providing this kind of optimized solution for robotic arc welding operations, since they are far more cost-effective than custom-designed welding cells.



### FlexArc heralds a new generation

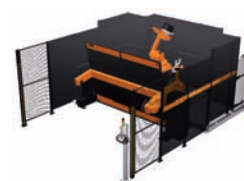
The arrival of FlexArc marks a new generation of standardized welding cells, which are designed to deliver cost-effective, state-of-the-art robotic welding operations. FlexArc welding cells are built to a global standard that delivers savings in both time and money.

FlexArc cells are designed using a modular system of standard components that can meet the requirements of most applications. All the cells are designed to deliver maximum performance whilst making optimum use of the space available.

The basic options feature either one robot or two robots with MultiMove, including welding equipment and a choice of ABB parts positioners from our extensive range.

### FlexArc tells its own tale

- Low investment cost
- Reduced downtime thanks to improved error handling
- Higher quality through automatic production and process monitoring
- Improved cost-efficiency thanks to global standardisation across all your facilities
- Extremely short delivery times
- Proven two-station principle (loading and welding)
- Offline programming for fast and easy implementation
- Improved worker & workplace safety



FlexArc 250K Single



FlexArc 250R MultiMove



FlexArc 500C MultiMove

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### Boosting your workflow

FlexArc features the FlexPendant graphical operator interface, which provides operators with an overview of the status of the cell plus important quality and production data. The interface allows the operator to communicate effectively with all of the functions within a cell and access all the information about the cell's performance, including the status of the robot, robot control, plus other functions such as roll-down door control.

With minimum training, the user can organize the welding operation into a series of work steps. The operator has all the information needed to keep track of the number of parts produced, as well as cycle times, the number of welds produced and the individual weld length.

Short delivery times and easy implementation make FlexArc's standard approach the natural choice for "plug-and-produce" operations.



### FlexArc is the most cost-effective global cell solution in your industry

- General industry: Door modules, grids, switch boards, printing units, steel furniture, shopping carts, racks, compressors, lawnmowers, two-wheelers, construction and agricultural equipment components
- Automotive industry: Cross members, engine cradles, door modules, exhaust systems, brake components, car seats, wheels, axles, dash boards and more

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### Virtual FlexArc: the ultimate productivity tool

A virtual replica of each FlexArc cell is available for free at [www.abb.com/robotics](http://www.abb.com/robotics).

- Train operators on the virtual cell without losing valuable production time on the real thing
- Generate programs off-line before your new system arrives
- Generate programs for new parts while the real cell continues to produce uninterrupted
- Design the weld fixture around an optimized robot welding program
- Verify that tooling provides proper weld torch access to the weld seam prior to building the weld fixture



### Quality and up-time tools

#### Production monitoring

The robot automatically monitors the production quality and reports via a message and a warning light if a part was not produced according to the specification. This enables the operator to take immediate action.

#### Navigator

The Navigator help function includes cell calibration for off-line generated programs, tooling calibration (including integrated co-ordinated measurement functionality) and cell self-diagnostics.

#### Integrated error handling

There's no need to look outside the cell when a weld error occurs. At the push of a button the robot will come to a service gate in the fence, where the operator can service the gun, for example, by changing the contact tip. This saves valuable production time.

