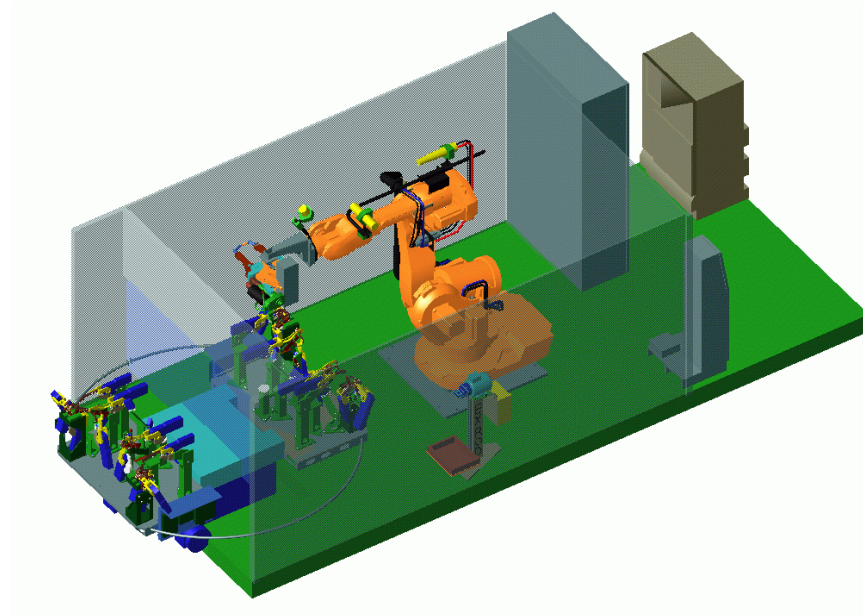


Solo 1R2C

FlexiCell

MAIN APPLICATION
Spot Welding for Body-in-White



A complete range of standardized cells

FlexiCell is a range of modular spot welding cells dedicated to the car body sub-assemblies and the preparation of body components.

A cell is composed of an electrical cabinet including API, a supply panel, two fixed tables for parts fixture, one spot welding dressed robot, a safety fence and the man/machine interface.

All these equipment are installed on a metallic platform integrating all cables to allow this cell to be transportable after tests without being dismantled.

Composed with modular equipment, the production cells FlexiCell can be used independently or combined together to form an assembly line, mini-assembly zones or a complete workshop.

Advantages

• Capacity investment

As it is made of modular equipment, more than 60% of your FlexiCell investment can be re-used for another part production.

The solution can also be used for batches production due to the quick tooling change fixture (less than 5 min)

• High level of reliability

All equipment used to build a FlexiCell has been 100% tested in our workshop.

Using the complete capacity of our robots in spot welding and material handling, the solutions only include reliable and non expensive peripheral equipment.

• Time reduction

The pre-studied cells decrease the time dedicated to assembly line design and mechanical & automation studies. Working with a modular concept, the basic and specific equipment of the project can be realized in the same time to reduce the manufacturing time.

The on-site installation and start of production are completed in a few days, thanks to the metallic platform on which all equipment are fixed.

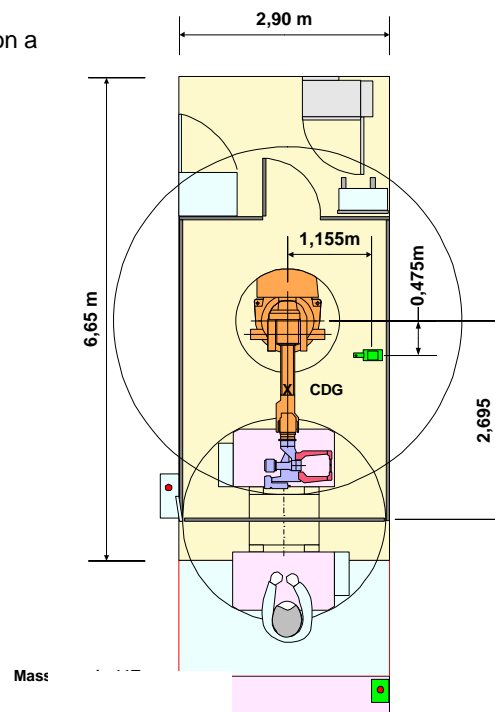
The ABB logo, consisting of the letters 'ABB' in a bold, red, sans-serif font.

Solo 1R2C FlexiCell

Production cell with 1 ABB robot IRB 6600 and geometrical tooling on a turntable.

DESCRIPTION OF BASIC FlexiCell Solo 1R2C

- ❖ 1 platform with fluid supply
- ❖ 1 electrical cabinet with API
- ❖ 1 supply panel
- ❖ 1 IRB 6600 robot
- ❖ 1 man/machine interface with operator panel
- ❖ 1 robot controller
- ❖ 1 spot welding gun
- ❖ 1 tip dresser
- ❖ 2 geometrical tools
- ❖ 1 turntable
- ❖ safety device for operation in front of the turntable
- ❖ safety fence



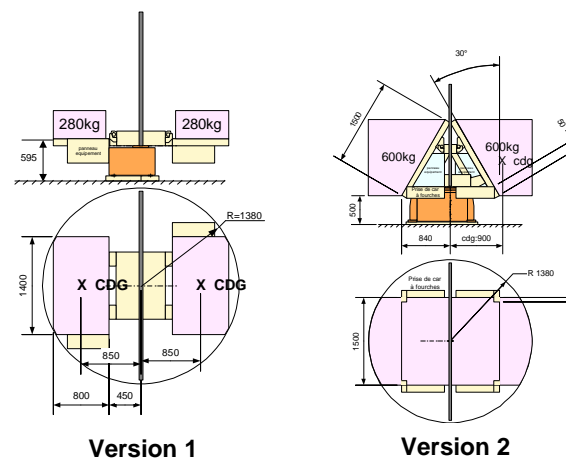
TECHNICAL DATA FlexiCell Solo 1R2C

Tooling Dimension: Diameter < 1400 mm
 Production capacity: 1,000 spots/h
 Weight: 11 tons
 Types of part produced: 2 / batch

TYPES OF TOOLING POSITIONING

For the two versions, ABB proposes a quick tooling change

Version 1: Horizontal tooling
 Version 2: Tooling with 30° angle



PRODUCTION CYCLE DESCRIPTION

The operator unloads and loads on one tooling while the robot welds on a second and vice versa, at the end of the cycle. After validation by the operator, the turntable makes a 180° rotation for a new cycle. It can produce either 2 identical or 2 different parts of type A and type B. The operator's safety is ensured by a laser radar or through other safety devices.

