Solo 1R2F

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 dismounted.

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 equipments.

• 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 delay.

The on-site installation and start of production are completed done in some days, thanks to the metallic platform on which all equipment are fixed.
Production cell with 1 ABB robot IRB 6600 and 2 geometrical fixed tooling to load the parts.

DESCRIPTION OF BASIC FlexiCell Solo 1R2F

- 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 fixed tools
- 2 doors with safety devices for operators
- safety fence

TECHNICAL DATA FlexiCell Solo 1R2F

Parts dimension (mm): 400 x 300 x 200 maxi
Production capacity: 1,000 spots/h
Weight: 7 tons
Types of produced parts: 2/ batch

PRODUCTION CYCLE DESCRIPTION

The operator unloads and loads on one tooling while the robot welds on the second tooling and vice versa, at the end of the cycle and after operator ’s validation.
It can produce, either 2 identical parts or 2 different parts of type A and type B.
The operator’s safety is ensured by 2 doors with vertical movement.

Unload & load cycle
Operator’s safety-Sta. A
Operator’s safety-Sta. B
Spot welding cycle

Station A Station B Station A Station B