MultiArc – the perfect welding team

MultiArc is a new concept for arc welding where more than one robot can be integrated with one positioner using ABB’s new controller, the IRC 5. With a brilliant brain and diligent hands, MultiArc makes the perfect team for arc welding.

The new controller IRC 5 can integrate up to four robots although for most industrial arc welding applications the optimal solution is a combination of two robots working with one positioner. Two welding processes at the same time on the same positioner means superior accuracy, increased quality, shorter cycle times and reduced floor space.

Advanced welding process know-how

The MultiArc has been developed in close co-operation with experienced and demanding customers in the automotive industry. Based on deep and advanced arc welding process know-how, MultiArc is a mirror in which operators and welding engineers will recognize their skills. They will also recognize the ease of use, high up-time, versatility and flexibility that are distinctive features of ABB.

MultiArc – a concept for different needs

Big or small – but always fast! To meet a wide range of different customer requirements MultiArc standard configurations include two IRB 140, 1400 or 2400 robots combined with one IRBP positioner, type R, K, D or L.

These standard configurations cover the majority of industrial arc welding applications but they do not exclude the possibility of non-standard combinations; solutions can be tailored to individual customer needs.

Different types of robots can be integrated and one of them can for example be used for material handling.
MultiArc features and benefits

- One controller co-coordinating two welding processes means powerful motion control and the elimination of synchronization times; this, together with superior path accuracy and perfect repetition, means shorter cycle times.

- Two welding processes at the same time results in better and more even heat distribution. This minimizes the risk of heat deformation thus safeguarding quality.

- Two welding processes on the same positioner means reduced floor space, increased flexibility and reduced fixed production costs.

- Using two integrated welding processes is about 70 percent more efficient than a single robot solution which means a substantial increase in production output.

ABB paramount principle for robot welding is to get the best possible weld at lowest possible cost. Designed on the basis of producing a range of well developed and proven components with optimal efficiency and flexibility, the new MultiArc concept is ideal for handling a wide range of complex parts.

MultiArc – A new level set by ABB

Multi-robot solutions are becoming more and more widely used and so ABB has simplified the use of such systems. The programming is easy and since it is very similar to a single robot system the programming time is reduced significantly. MultiArc welding cells are built from ABB standard components which ensures reliability and a long life. ABB MultiArc increases productivity but not complexity!

Solution examples

www.abb.com/robotics

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