More car models equals more business

Flexible robotic ultrasonic welding enables Huaxiang to use one production line to handle multiple car models.

Huaxiang Group in Ningbo China is a large auto interior and exterior trim supplier that ranks among the top 500 automobile parts companies in the world. Since its entry into the industry in the late 1980s, it has achieved 80 percent of the global market share in auto front cover trimming and 80 percent of the Chinese market share in auto air-conditioning and plastic assembly parts. It is also a parts supplier to multinational auto giants such as GM.

In 2001, Zhou Minfeng, president of Huaxiang, says that he first fell in love with ABB robots at first sight because of their advanced technology, unique and innovative software and their intuitive interface. So it’s no surprise that one year later, ABB robots were installed at all the plastics lines of Huaxiang. The robots excellent performance was recognized by Huaxiang and consolidated the long-term partnership between Huaxiang and ABB. “ABB robots prove their major roles in many lines and ABB’s advanced technology and perfect service quality by facts. They are our only and best choice when we need more industrial robots in future,” says Zhou.

As a supplier of famous car makers such as VW, Dacia, FAW and Chery, Huaxiang has many orders yearly of interior trimming including door panels and columns A, B and C.

Originally, ultrasonic welding for plastic trimming was handled by special machines or manually. At the same time, in order to meet the market demand for more models and increased customization, car makers have to change their big orders for single models to small orders for multi models today.

In view of the ever-changing market, ABB tailored for Huaxiang a complete robotic ultrasonic welding system cell including an IRB 2400 robot, an ultrasonic welding machine and a positioner. Overall productivity was significantly improved by integrating the welding head to the sixth axis of IRB 2400 and making the robot drive the welding head to weld columns A and B for Ford and Audi. The production per day increased from 50 sets to 300, and enabled the customer to cater for the needs of two to five car models per month with single equipment investment and lower production cost.

Furthermore, the use of the system improved the customer’s productivity, workshop environment, corporate image and competitiveness and reduced its cost. Today this robotic ultrasonic welding process is increasingly popular in the market and has been included in many customers’ purchasing lists.