

Welding

Case study: Auto parts, Huaxiang, China

Applications

- Handling
- Machine Tending
- Welding

Products

- IRB 2400

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.

Automated welding

As a supplier of famous car makers such as VW, DCAD, FAW and Chery, Huaxiang has many orders yearly of interior trim 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 tai-lored 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.

> FACTS

Benefits of the welding line

- Production increased from 50 to 300 sets per day
- High flexibility means single welding line can handle multiple car models
- Better environment for workers
- Improved corporate image
- Reduced costs