



# Smart robots help

**With the support of ABB robots, Shanghai Huizhong Automotive Manufacturing Co. Ltd. has successfully won major projects, greatly reinforcing its competencies.**

By Rita Yao  
Photo Gao Erqiang

> It is no exaggeration that most cars made in Shanghai use parts and modules from Shanghai Huizhong Automotive Manufacturing Co. Ltd.

“We are the biggest car module supplier in China, and provide chassis and parts to major auto-makers in the country,” says Wang Jianhang, an engineer with Huizhong who has participated in many major projects for the company. “In addition, we also produce cars, buses and heavy trucks.”

Established in 1991, Huizhong is a wholly owned subsidiary of the Shanghai Automobile Industry Corporation, the largest vehicle group in China. Employing more than 6,500 people around the world, Huizhong boasts 12 plants in the country and has set up offices in the United States, Germany and Australia.

“In fact, we grew out of several old chassis factories, some of which have a history going back more than 60 years,” says Wang. “In 1986 one of the factories became the exclusive supplier for Shanghai Volkswagen, and in 1998 Huizhong became the exclusive chassis supplier for Shanghai General Motors.” Wang himself has worked for the company for 14 years and witnessed its swift growth.

Currently Huizhong’s customers in China are Volkswagen, Audi, Hyundai, Ford, Fiat, Honda and Toyota. With such momentum behind it, the company has breezed onto the international Automotive OEM scene, joining the global competition.

From 2003 to 2006, Huizhong was granted the status of global tier 1 supplier for General Motors Global, Ford North America, FAW Volkswagen, General Motors Global Epsilon platform, Daimler Chrysler and Chang’an Ford.

“By 2005, our sales volume has reached USD 580 million [RMB 4 billion],” Wang says. “Although we have expanded very rapidly, we need to enhance our competencies by developing our own products.”

**Although China’s** producers may have certain advantages in terms of labor costs, Huizhong clearly knows that, as a company competing on the international stage, it must provide satisfactory products and services.

“Price is a very important factor, but it is not the most fundamental one,” Wang explains. “How to enhance our capabilities in research and development is most important. To reinforce our competencies, we have chosen to partner with reputed suppliers, and this strategy is working very well.”

Huizhong started to use ABB welding robots in 2005, and now has more than 60 robots including IRB 2400L and IRB 1410 as well as positioners IRBP500R and IRBP 750R in service, making parts for Ford and General Motors.

“In fact, 2005 was a turning point for our company,” Wang adds. “The project to produce subframes for Ford was of great significance for us.”

Wang explains that it usually takes 10 to 12 months to develop a product such as a subframe. Wang and his team, however, were required to finish the job in five months.

“Time was extremely tight,” he recalls. “The person responsible for the technical part of the project at



### ABB Robots in Huizhong

- Huizhong started cooperating with ABB in 2005.
- Now Huizhong has about 60 ABB welding robots working on the Ford and General Motors projects.
- The user-friendly robots won Huizhong's approval, not least because their operation panel can display Chinese characters.
- On the Ford line, a total of seven robot stations can complete welding on 110 sub-frames per shift.

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# propel growth

Ford felt that it was totally a 'mission impossible.'

When Huizhong was searching for suppliers for the project, it chose ABB for the welding work and received four sets (a total of seven) of robots.

"ABB lived up to our expectations," Wang says. "They spared no effort in supporting us and tried their best to meet our standards on clamps. The robots are fantastic, but to make the welding work perfectly, we still needed high-quality clamps to help with accurate positioning. ABB solved the problem by cooperating with its local supplier."

Wang and his colleagues amazed Ford by presenting their design within five months. "I went to ABB every day for a month to discuss the design," Wang recalls with a smile.

Soon Ford expanded its production, and Huizhong also increased its number of ABB robots. Now in the noisy workshop 14 robots weld at seven workstations.

"Different workstations have different welding tasks, and now we can produce a total of 110 sub-frames per shift," says Zhou Hui, supervisor for the Ford subframe line.

**Having worked** for Huizhong for 10 years, Zhou has operated a number of different welding robots. What impresses him most about the ABB robots is their user-friendliness. "We installed more robots last year," he says, "and the updated operation panel is equipped with a touch screen that can display Chinese characters, which is really convenient for our workers. Although Ford's production expansion does put pressure on us, we can handle it easily with the help of these robots."

Thanks to ABB's improvements to the fixture, the reliability of the parts has improved greatly. "It seems very easy, but ABB made a great effort on the improvement," Wang says. "To ensure the quality of the fixture, ABB undertook the design work itself, a task that used to be performed by its supplier."

With the success of the Ford project, Huizhong again allied with ABB, winning the H-Car project from General Motors. In this project, Huizhong produces the rear axle and subframe and has more than 40 ABB robots working on the project.

"I hope Huizhong will work even more closely with ABB to win even more support," says Wang. "It would be perfect if ABB could join us when a project is still in the preliminary design stage." 🍷

### > FACTS

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