

On the road to the future: Japan's automotive SMEs place themselves in the driving seat

From the perspective of the end consumer, Toyota, Honda and Suzuki are the brand names that represent Japan's reputed automobile industry, whose logos adorn the finished vehicles that we see and drive. But behind those famous brand logos under the hood, inside the gearbox and behind the steering wheel - lies the work of Japan's SME manufacturers that supply the parts and components essential to the quality, safety and performance of Japanese automobiles and motorcycles. Indeed, thanks to their renowned product quality and technological prowess, these companies also count leading international car makers – from GM to BMW – among their satisfied customers.

Today, the changing global market landscape has posed a major challenge for these companies to innovate and diversify their product offering. Firstly, the increasing competition on the global market has led to some of these companies

losing major contracts, including with the large Japanese car makers to which they belong as subsidiaries. Toyota Boshoku, for example, lost the contract to supply seats for the Toyota Camry to an American company back in 2008.

"The case of Toyota Boshoku is quite true to us," says Noboru Takahashi, president of Honda Lock, which is 100% owned by Honda. "Similarly, we lost some businesses because Honda Motors procured parts from the general market. In order to overcome this severe cost competition, we entered the overseas market where Honda Motors operates and promoted the 'Made by Global' strategy, which enables us to achieve an optimal cost competitiveness by procuring parts from all over the world."

Under its 2030 Vision, Honda Lock aims to find new global partners while diversifying its product offering, which includes developing parts and components for the electronic, hybrid and fuel cell vehicles that will become the dominant fixtures on the road in the years to come. Similarly, environmental regulations have also compelled Japanese parts makers to develop components from new materials aimed at contributing to weight reduction and fuel efficiency, as is the case with Chugai.

"We understand that weight reduction and electrification are the main changes in the automotive industry, and in order to respond to these changes, we manufacture materials needed for the interior and exterior of vehicles, products that are lightweight and function as soundproofing materials," says Chugai president, Toru Naruse. "One of our competitive advantages is that we understand the needs of the EV market. We can provide thermal, acoustic, and optical solutions and have the affiliates to do so."

Likewise, Aoyama Seisakusho, a globally leading supplier of fas-

tening systems, has developed innovative ways of making its products lighter. "With our new technology we create parts which do not require welding and are able to join together mechanically. In this way, rather than trying to change the weight and materials of the bolt itself, we focus on adapting the materials around it and how to join the parts together, as these parts make up the majority of production costs as well as most of the total weight," says president, Yukiyoshi Aoyama.

"These products may not seem that different to what they were 10 years ago but these small innovations allow us to answer the needs of our customers. Our competitors in Shanghai may offer cheaper products but we believe our strength is in maintaining and assuring the quality of our products so that we do not accept a single defect out of the hundreds of thousands of products we manufacture."

Leading car parts supplier also pioneering modularization in factory automation



Shigemitsu Kondo, President, Kondo Seisakusho

Japan's leading position in the automobile and factory automation/robotics industries is not only attributed to giants like Toyota and FANUC, but also to the legion of small, agile and tech-savvy SMEs that build parts and components for tier-one companies domestically and worldwide.

One such firm operating in both industries is Kondo Seisakusho. Aside from supplying auto parts for automobile manufacturers, Kondo Seisakusho develops factory automation (FA) and robotics equipment for a wide range of



industries, including automotives, food, medical and semiconductors.

As a trusted supplier of both parts and robotics equipment to many companies, including several Toyota Group companies, Kondo Seisakusho adopts Toyota's monozukuri (Japanese craftsmanship) and kaizen (continuous improvement) approach to manufacturing. This approach ensures products of the highest quality and performance – which are built with speed, accuracy and efficiency at Kondo's state-of-the-art, FA-equipped 'smart' factories in Japan, Thailand and the US.

"We are lucky that we are in Aichi prefecture, where manufacturing industries such as that overseen by Toyota are thriving.



Toyota's monozukuri spirit is of a very high value, so in order to meet their needs we have to produce our automobile parts and robotic components at a high level too," explains president, Shigemitsu Kondo.

Ever since Kondo Seisakusho began supplying food and powder production machinery following World War II in response to the urgent need for food security in that post-war era, the company's success has stemmed from its policy of "embodying the various needs of customers and society."

"Our large product catalogue represents the accumulation of our efforts to meet our customers' needs through our R&D. Through such continuous efforts we have provided over 1,000 different



types of robotics accessories including pneumatic grippers. Our robotics accessories are modularized, so can be utilized in various ways in any field, depending on the customer's idea," adds Mr. Kondo.

"We have knowledge and experience with the FA business and the robotics tool business, which we have accumulated in the process of responding to customer requests. Moving forward, we would like to contribute to the development of FA by improving the versatility and maintainability of robot tools through modularization."

