

Minebea's Strategy



Fan Motor Business Unit

In 2004, Minebea established Minebea–Matsushita Motor Corporation (currently Minebea Motor Manufacturing Corporation) with Matsushita Electric Industrial Co., Ltd., with the aim of integrating the two companies' information motors businesses in four categories. Minebea's fan motor manufacturing department also participated, supplying one of the joint venture's core products. Recently, Matsushita's fan motor business was also merged into the joint venture, signaling the start of a new phase in the company's development.

Interviewer: From the Fan Motor Business Unit, we welcome Seiichi Tsukutani and Yasuhide Hirashima. Thank you for agreeing to talk to us today.

Tsukutani, Hirashima: Not at all.

Interviewer: I understand that the Fan Motor Business Unit conducts all of its production at Minebea's plant in Shanghai, under Minebea's vertically integrated manufacturing system. What is the scale of this operation?

Hirashima: Fan motors are manufactured at the Xicen Plant of MINEBEA ELECTRONICS & HI-TECH COMPONENTS (SHANGHAI). The plant puts out a combined total of approximately 8 million AC and DC fan motors monthly. Minebea's success reflects its emphasis on the production of ball bearings and other parts in-house. Accordingly, a high percentage of the parts used in Minebea fan motors are sourced internally. This includes ball bearings, of course, but also molded parts, including casings and impellers, as well as certain molds for manufacturing other molded parts.

Interviewer: Minebea's vertically integrated manufacturing system, which seeks to increase the percentage of parts sourced internally, is really Minebea's unique manufacturing excellence put into practice, isn't it?

What supports Minebea's competitive advantage in terms of mass production capabilities?

Hirashima: I think internal sourcing has both merits and demerits. For the Fan Motor Business Unit, however, it is crucial to have a strong internal sourcing capability that works with us in a manner that underscores our mutual reliance.

Tsukutani: Looking at recent customer needs, uniform mass production, even for a largely standardized product like a fan motor, will not be appropriate for much longer. Fan motors are primarily used in PCs, office automation (OA) equipment and home electrical appliances. In recent years, we have seen a trend in demand toward motors that are tailored specifically to suit different models and types. Not so long ago, the main performance requirements for a fan motor were that it was solid and long lasting and drew out a huge amount of air. Today, however, requirements have changed to where customers want to know how Minebea motors can be incorporated into their products to help them resolve the problem of thermal emissions. The solution is to press ahead with greater customization. We must step up efforts to offer products that respond to a variety of specifications, which will in turn contribute to a broader product range.

Seiichi Tsukutani

Employee since April 2004
Senior Manager in Charge of DC Axial
Fan Group, Fan Motor Division,
Karuizawa Plant
Minebea Motor Manufacturing
Corporation



Interviewer: Management has outlined a new vision for Minebea, that of a company which leads the competition through manufacturing excellence. Is the idea of “Rethinking manufacturing from the most fundamental aspects” also part of your brief?

Hirashima: With the establishment of the joint venture, the Fan Motor Business Unit entered a period of significant change. We had already begun working on fan motors with engineering and development teams about a year prior to the merger, so we were able to integrate manufacturing facilities promptly and easily, thus combining two businesses with proud histories and solid performance records.

Tsukutani: Minebea uses ball bearings in its fan motors, but we had no experience with sleeve bearings. You can't manufacture two motors with different types of bearings in the same way. Even in terms of basic product construction, we had two companies with very different manufacturing cultures. The idea was to combine our strong points and work together, but it really wasn't that simple. Both companies were forced to take a good, hard look at their own manufacturing cultures. This was really the first step toward the harmonious union of the two businesses.

Hirashima: As I said earlier, management set forth this new vision at a time when we were taking the first steps toward learning from each other and working together to address a variety of challenges, so it was really encouraging.

Tsukutani: The fan motor plant in Xicen is undergoing some significant changes at this time, actually. We have dramatically revamped the final assembly line, where various parts are brought in and assembled into fan motors, shifting from a traditional linear configuration to manufacturing

cells. The overall layout of the plant has been modified to accommodate cellular manufacturing. There was a lot of debate about this, but eventually we concluded that this would be the best solution for ensuring the fan motor business moves forward. I'm repeating myself, but we are coming up to a time where mass production of standard products will no longer be viable. Such a major shift in approach usually takes quite a while to implement. There is no doubt that management setting a direction for us that called for decisive change accelerated our efforts to realize a harmonious union.

Interviewer: The impetus behind the original merger may have been external pressure, but am I correct in concluding that it spurred you to focus anew on leading the competition through manufacturing excellence?

Hirashima: For us in the Fan Motor Business Unit, the idea of “Leading the competition through manufacturing excellence”—essentially an internal challenge—was prompted by the merger. The fact that extensive discussions on the subject of modifications to our manufacturing processes led to the somewhat daring decision to adopt cell manufacturing is largely due to Minebea's tradition of taking on new challenges in the quest for manufacturing excellence.

Tsukutani: The manufacturing revolution in the Fan Motor Business Unit is ongoing. All of us recognize that it is imperative we make this work—and I am confident we will.

Interviewer: Thank you. I look forward to hearing about more and greater successes.

Hirashima, Tsukutani: Thank you for asking us to talk with you today.

14



Yasuhide Hirashima
Employee since April 1991
Manager of Production Control Office,
Fan Motor Division, Karuizawa Plant
Minebea Motor Manufacturing Corporation

