

## Investment in New Fields and New Markets

It is vital that we aim to achieve growth by increasing sales through further differentiating our products at the same time as developing new products and improving existing ones in order to meet today's specific needs.

An example is responding to the introduction of a system to subsidize photovoltaic power generation and also a system to purchase the surplus electricity generated by it at high rates. Due to factors such as these, we are optimistic about the prospects for future growth in this market. The Tsubaki Group will play a significant role in the photovoltaic-related industry in the future because many of



Demand for photovoltaic panels is expected to increase

its wide-ranging lineup of products in the Motion & Control segment is used extensively in this industry and market.

For example, the process to produce cells uses bulk conveyance systems and chains, and speed reducers for the transportation, cleaning, and drying of silicon—the raw material used in this process. These systems in turn make use of a jack system to lift up the silicon ingots. Further, the module process for assembling panels with the cells created in the preceding process utilizes such Tsubaki Group products as plastic chains for conveyors and power cylinders for vacuum cell compression. The Tsubaki Group is pioneering markets by developing new products and improving existing products that are optimized for their particular use environment, with a focus on the keywords "vacuum," "minimal dust," "electric conductivity," "heat resistance," and "minimal wear."

### Special Feature:

## "Getting ready for the future of the Tsubaki Group"

## R&D and Capital Investment

Despite the severe operating environment, we will not stop investing in the R&D needed to maintain and increase the Group's technological superiority.

The Auto Engineering Lab—which we opened in April 2009 and began full-fledged operations in June—is a perfect example of our proactive attitude toward maintaining and increasing our competitive superiority. This new facility has a total floor space of 5,700 square meters, and with it we are targeting the following three objectives. First, is to strengthen our evaluation systems by testing products on actual equipment and vehicles. It is extremely important that we accumulate

data on the performance of our automotive parts, including our timing chain drive systems which have a 37% share of the global market, through continuous usage testing on actual equipment. Further, by sharing the details and results of our testing with customers, the facility will not merely function as an R&D base, but also as an extremely powerful marketing tool. Second, is to strengthen our evaluation of product functionality. Our testing at this facility is enabling us to capture precision data on the machinery and materials necessary to develop products that are even more environmentally friendly and that further contribute to low-cost operations. Third, is to promote the development of new production and processing technologies. We will develop technologies to efficiently mass produce these new products.



The newly constructed Tsubaki Group Auto Engineering Lab

## Investment in Human Resources

It would be impossible to manufacture our products if we focused solely on reducing personnel costs. In particular, as a manufacturing company it is vital that we pass down engineering skills at our workplaces and train professional engineers, as these efforts connect directly to our competitive strength. The crisis caused by veteran engineers failing to pass on their skills and knowledge to the next generation when they retire has developed into a society-wide problem. Aiming to address this problem, 10 years ago the Tsubaki Group founded the Tsubaki Techno School as a center for research and training. The school is involved not only in developing technology, but also is actively engaged in the in-Company training of engineers to be the type of employees who form the



Tsubaki Techno School

foundations of our superiority as a company. The Tsubaki Techno School provides the following courses: a beginners' technology course, which deals with basic technologies, processing technologies, and an introduction to electronics; an intermediate technology course, which covers materials engineering, control engineering, and technological engineering; and a skills course, which aims to pass down to students the Group's expertise in processing and to improve their skills in management and supervision. In addition, we have established a sales and marketing course and a business course whose themes include intellectual property and English-language contract documents. In these ways, we are training staff in a broad range of areas. Currently, the school has increased the number of courses it offers to 17, and over 1,000 students have successfully completed a Tsubaki Techno School course (excluding manufacturing skills-related courses).

**At the Tsubaki Group, we have adopted a flexible stance of “find and seize the opportunity” toward combating the effects of the economic slowdown through rapid cost-cutting measures. On the other hand, with regards to our competitive superiority in technology and production the Group is continuing to push forward with consistent policies to strengthen our technological and production capabilities so that we are not dictated to by the strength or weakness of economic conditions.**

## Investment to Improve Operational Efficiency

The Tsubaki Group is aiming to both develop globally and to grow to a scale appropriate for a global business. To achieve this, we recognize that, together with cost reductions, a major issue is how to raise efficiency in all aspects of our operations and how to increase per capita productivity.

Based on this recognition, the Tsubaki Group is working to continuously raise efficiency in all of its workplaces by further utilizing IT, such as in the Finance & Accounting Department. In addition to the enactment into law of quarterly financial reporting and revisions to accounting standards, the progress the Group has made toward global Group management has increased the work burden on accounting staff. To alleviate this situation, this division has introduced a new consolidated accounting system, which has substantially reduced the time required to

process data relating to eliminations between consolidated subsidiaries. Going forward, we will further develop this system to integrate the administration of financial accounting with management accounting. We believe this will enable us to realize faster and more accurate performance forecasts and business planning. We are also leveraging IT in other areas in order to realize further improvements in operational efficiency, such as by integrating Electronic Data Interchange (EDI) systems between retailers and the Tsubaki Group, our technological information management systems, and our Group IT infrastructure management systems.