

New Business Review

ACE Division

Broad Possibilities for THK's Seismic Isolation and Damping Technologies

ACE stands for Amenity Creation Engineering. Guided by the concept of "developing technology to realize creative living spaces for greater comfort," the ACE Division has sought to apply THK's original linear motion technology since its establishment in 2001. The division develops and markets seismic isolation and damping systems that protect human life and property from the threat of earthquakes. In addition, steps are being taken to promote increased use of the division's products and technologies in home automation-related devices.

A distinguishing feature of THK's efforts in the seismic isolation and damping systems fields is its broad lineup of products that apply basic technologies such as LM guides and ball screws to protect a wide range of structural types, from high-rise buildings and low-rise residences to historical structures such as temple and shrines. Following the Great East Japan Earthquake that struck the nation on March 11, 2011, awareness toward the importance of business continuity plans (BCPs) has increased dramatically. This has in turn contributed to a sharp jump in demand for seismic isolation platforms to protect specific pieces of equipment and assets essential to business operations including servers and a variety of manufacturing equipment. Utilizing THK's original expertise in seismic isolation technology and know-how, the Company is working to expand the use of seismic isolation platforms.

In fiscal 2011, the ACE Division continued to undertake sales and marketing activities that emphasized the competitive advantage of THK's products. This was particularly the case for the number of THK seismic isolation systems for buildings, which account for over 70% of the division's total sales. In addition, the division secured a substantial increase compared with the previous fiscal year in the number of THK seismic isolation platforms. A highlight of the fiscal year under review was the release of the Seismic Isolation Module, Model TGS. In addition to its new dampening capabilities, Model TGS offers improved connectivity freedom, allowing a wider range of seismic isolation platform applications

compared with existing products. As a result, the division received an extremely large number of orders.



An example of residential seismic isolation application



As another measure of the high esteem in which THK's products are held and recognition of its contributions to society in the field of earthquake protection, the Company was selected as a recipient in the 54th 10 Major New Products Awards sponsored by Nikkan Kogyo Shimbun Ltd.

Expanding Product Lineup and Bolstering Sales and Marketing Activities

Amid increasing general awareness of the need to implement disaster-related contingency measures, THK expects demand for seismic isolation and damping systems to continue growing over the long term. The ACE Division will continue to promote the considerable benefits of THK's seismic isolation and damping technologies to architectural firms and homebuilders and actively promote the use of its products in the construction of public offices and other buildings that are charged with the responsibility of providing a disaster headquarters function during periods of emergency in order to further diversify its customer base. Moreover, THK will upgrade and expand its lineup of seismic isolation platform systems where demand is climbing sharply. In addition to addressing increasingly diverse earthquake countermeasure needs, the Company will expand sales while promoting the appeal of its broad product applications. This includes the outstanding efficacy of its seismic isolation systems with regard to precision measuring equipment including detection equipment.

In fiscal 2012, the ACE Division will introduce to the market its Inertial Rotary Damping Tube (iRDT). In addition to controlling the degree of shaking caused by long-period ground motions, iRDT employs its high damping efficacy to reduce the number of installation units. This in turn curtails overall costs. iRDT can not only be used in the construction of new buildings but also in renovations to strengthen the seismic resistance of existing structures. Taking into consideration each of the aforementioned factors, this new product is anticipated to attract significant demand. Turning to the general consuming public, the division will work to promote more widespread product uptake by continuing to organize seminars for consumers to help explain the importance of installing seismic isolation and damping systems, along with the advantages offered by THK's technologies and products, and at the same time implement sales and promotional activities through effective use of the Seismic Isolation Experience Car initiative.



An example of seismic isolation table application (seismic isolation platforms for servers)

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FAI Division

Targeting Higher Earnings from Transportation Equipment Fields

FAI stands for Future Automotive Industry. THK set up the FAI Division in 1999 to expand usage of the Company's products as automotive parts. THK's link balls, which are the division's mainstay product, employ an integral molding process for the production of aluminum die-casts, making each link ball much lighter than their conventional steel equivalent. At the same time, the Company's link balls are highly resistant to corrosion and abrasion. This product is attracting keen interest from major automobile manufacturers in Japan and overseas as the demand for fuel-efficient automobiles continues to rise. In 2007, RHYTHM CORPORATION, an automotive parts manufacturer that boasts superior forging technologies, was included in THK's scope of consolidation as a subsidiary company. In the ensuing period, and with the addition of RHYTHM, the division has worked diligently to promote business development under an integrated format. In order to further strengthen this collaboration, steps were taken to change the name of RHYTHM to THK RHYTHM CO., LTD. in June 2010. The THK Group is targeting a global presence as an automotive parts supplier through the pursuit of synergies with THK RHYTHM to enhance the Group's ability to respond rapidly and precisely to changes in the global automotive market.

Toward Realizing Further Synergies with THK RHYTHM

Projected major developments in the FAI Division over the medium to long term include significant growth in automobile demand within emerging markets and expansion in the number of major automobile production regions. Another key change is an ongoing trend to make automobiles lighter and more energy efficient, reflecting greater global interest in environmental protection. As a result, hybrid and electric vehicles are expected to gain in popularity in the future. Against this backdrop, THK continues to further develop those synergy effects to accrue from its relationship with THK RHYTHM. In this manner, the Company is working to expand the use of its products across a wider spectrum of automotive models.

Among a host of specific benefits to accrue to date, and from a management perspective, THK has witnessed increased efficiency in the handling of orders with a fewer number of people attending to a larger volume of orders. This has been achieved by consolidating the corporate function at THK RHYTHM's head office, and has further helped in building a structure that increases the speed of product use. From the standpoint of sales, proposals with respect to THK RHYTHM's products were implemented using THK's sales channels as well as its established trading relationships with domestic and overseas manufacturers of finished automobiles. Moreover, steps have been taken to consolidate overseas branches and to bolster collaboration among staff. Turning to production, the manufacture of THK's link balls in Japan was taken over by THK RHYTHM. This initiative is designed to promote global business

development, ensure agile and efficient business operations and further enhance profitability in transportation equipment-related businesses. By leveraging THK's outstanding production technologies accumulated as a leading manufacturer of LM guides together with the production and quality management techniques of THK RHYTHM, a manufacturer of automotive parts, successful efforts have been made to secure highly cost competitive production. On the technology front, subcommittees were established to better promote the interaction and exchange of the technological expertise of both companies. As one example, THK RHYTHM's forging technologies are being applied to the manufacture of LM guides, a core THK product. On this basis, the Group is implementing activities aimed at expanding use in consumer product areas and enhancing the cost competitiveness of LM guides. In this manner, the Group is working diligently to draw out synergies between THK RHYTHM and THK at each of the management, sales, production and technology levels.

Complementing the aforementioned initiatives, THK took steps to proactively expand its business in fiscal 2011. Working to address growing demand in Asia, the Company included TRW Steering & Suspension Malaysia (currently THK RHYTHM MALAYSIA) within its Group structure through the acquisition of shares. In these ways, the Company has successfully increased the number of global scale automobile models that employ its products.

In fiscal 2012, THK will work to bolster its production structure in developing countries which continue to experience demand growth. As a part of these efforts, THK RHYTHM CHANGZHOU in China will commence the delivery of products to customers. THK will also establish THK RHYTHM MEXICANA in Mexico with a view to supplying products not only to Mexico but also to the Americas. Looking further ahead, the FAI Division will accelerate efforts to realize synergies with the aim of promoting increased application of its products. At the same time, the division will also work to lift the take-up of the Company's core products including LM guides and actuators, as it strives toward improving profitability in transportation equipment fields.



An example of link ball application

IMT Division

Expanding Use of the Group's Actuator and Unit Products Businesses

The Innovation Mechatronics Technology (IMT) Division was established in June 2009 with the aim of expanding the Group's electric actuator and unit products businesses, areas which are projected to experience future market growth.

In recent years, and amid the growing need for enhanced productivity prompting advances in performance and diverse functionality with respect to such industrial machinery as semiconductor as well as flat-panel production equipment, calls for improved economy in machinery architecture and design have become increasingly prominent. Under these circumstances, demand for mechanical, hydraulic or air-based equipment including actuators, which assist in the movement and control of goods, is expected to rise. Moreover, as interest in global environmental protection gathers momentum, the need for electric actuators, which deliver superior energy efficiency compared with existing hydraulic- and air-based actuators, is projected to advance. In addition, extending beyond industrial machinery, momentum is projected to gather toward electric-powered production lines across all areas.

Against the backdrop of this operating environment, the IMT Division is leveraging THK's original concepts and innovative technologies to further cultivate markets. As an initial step, the division will work to expand the application of electric actuators and unit products in industrial machinery. Recognizing the existence of wide-ranging needs in such community and general living environment areas as fitness and nursing care, the division will endeavor to draw on this latent demand to spur earnings growth. In this regard, every effort will be channeled toward actively developing electric actuators that combine varied and diverse applications while at the same time nurturing the market.

Building an Operating Structure that is Capable of Fulfilling Market Needs

Since its establishment, the IMT Division has taken steps to build a sales system that is capable of accurately and swiftly responding to wide-ranging customer needs. Moreover, the division has adhered strictly to a policy of human resource education and training. In specific terms, the division has combined its individual electric actuator catalogues into a single comprehensive package while also putting in place an information website complete with video presentations. Through these means, considerable emphasis has been placed on enhancing the convenience of its production presentation tools. In order to better respond to customer inquiries and requests for technical advice, the division has put in place a specialized electric actuator customer support service. From a human resource education and training perspective, the division is implementing broad training programs to help gain a higher level of technical expertise.

In fiscal 2011, the IMT Division worked diligently to analyze market trends while reconfirming customer needs. The results of this analysis and reconfirmation were then reflected in its new product development activities as the division endeavored to upgrade and expand its product lineup. Looking ahead, every effort will be made to actively expand sales of these new products. The division will, for example, hold private events and technical seminars when necessary. In addition to putting forward proposals that address customer issues, the IMT Division will strive to expand applications of its electric actuators in overall terms and aggressively promote the development of next-generation electric actuators. While strengthening the structure of its operating structure in Japan as a matter of course, the division will promote Full-Scale Globalization throughout the Americas, Europe and Asia. The division will also actively build local operating bases incorporating production and sales focusing mainly on Asia, where significant market growth is forecast.

