

BUSINESS REVIEW: NEW BUSINESS REVIEW

ACE Division

ACE

Amenity Creation Engineering

ACE Division Overview

Guided by the concept of “developing technology to realize creative living spaces for greater comfort,” the ACE Division develops and markets seismic isolation and damping systems that protect human life and property from the threat of earthquakes. In addition, the division takes steps to promote increased use of its products and technologies in home automation-related devices, such as the sliding components of shelves in system kitchens. In its seismic isolation and damping system business, the division provides a broad lineup of products—from seismic isolation devices for high-rise buildings, low-rise residences and historical structures, such as temples and shrines, to seismic isolation platforms for servers and a variety of manufacturing equipment—by leveraging basic technologies, such as LM guides and ball screws. Amid such operating activities, the ACE Division aims to support society in fields that are closely linked to people’s everyday lives.

Operating Conditions and Business Expansion Activities

Amid a rapidly 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 medium-to-long-term. Especially amid the increasing awareness of the importance of business continuity plans (BCPs) following the Great East Japan Earthquake of 2011, more widespread demand is expected for seismic isolation platforms to protect specific pieces of equipment and assets essential to business operations, including servers and a variety of manufacturing equipment.

In fiscal 2014, adding to the previous adoption of seismic isolation platforms for servers, the ACE Division achieved a significant year-on-year increase in their adoption for the protection of 3D measuring equipment, diffusion furnaces and works of art. Furthermore, having recently entered the mass damper market, the ACE Division made enterprising expansion efforts toward their adoption in such areas as automated warehouses and precision instruments.

Continuing to promote the considerable benefits of THK’s seismic isolation and damping technologies to architectural firms and homebuilders, the ACE Division will expand its sales network, for example in the systems integrator and medical fields. In addition, while planning technological improvements in collaboration with other divisions to steadily address the diversifying needs for seismic isolation and damping systems, the ACE Division will also expand its product lineup and work to capture overseas demand.

Product Lineup: Building Seismic Isolation Systems

Support

Linear Re-circulating Guide CLB

A seismic isolation system that combines LM guides in the shape of a cross. When supporting buildings, the CLB smoothly and easily responds to a variety of shaking motions.

Reduce

Viscous Damping System RDT

Absorbing the earthquake force transmitted to a building by using ball screws, this system reduces the shaking in response to the earthquake’s speed.

Return

Laminated Rubber for Recovery Use

Serves to return a building to its original neutral position after following earthquake-induced movement.

Product Lineup: Seismic Isolation Platforms

Seismic Isolation Module Model TGS



Model TGS isolation modules enable flexible layouts and are suitable for the partial isolation of heavy loads and seismic floor isolation.



Seismic Isolation Table Model TSD

Model TSD isolation tables are seismic isolators that function by simply installing them on the floor. They have been adopted for a wide range of applications, including servers, precision instruments, and works of art.



Microscopes



Dialysis machines



Analysis equipment



Works of art

FAI Division

FAI

Future Automotive Industry

FAI Division Overview

While engaging in the development and supply of the automotive components that support the basic functions of automobiles, the FAI Division is responding rapidly and precisely to changes in the global automotive market and targeting a global presence as an automotive parts supplier. Automobile undercarriage components that realize weight savings and are highly resistant to corrosion and abrasion, the FAI Division's mainstay link ball products are attracting keen interest from major automobile manufacturers in Japan and overseas. In 2007, RHYTHM CORPORATION (now THK RHYTHM CO., LTD.), which boasts superior forging technologies, was included in THK's scope of consolidation as a subsidiary company. While working to draw out synergies between THK RHYTHM and THK at each of the management, sales, production and technology levels, efforts were made to expand business. The division is now working to expand applications of its linear motion-related products in a variety of automobile mechanisms other than automobile undercarriage components, including next-generation steering, brakes, suspensions and interiors.

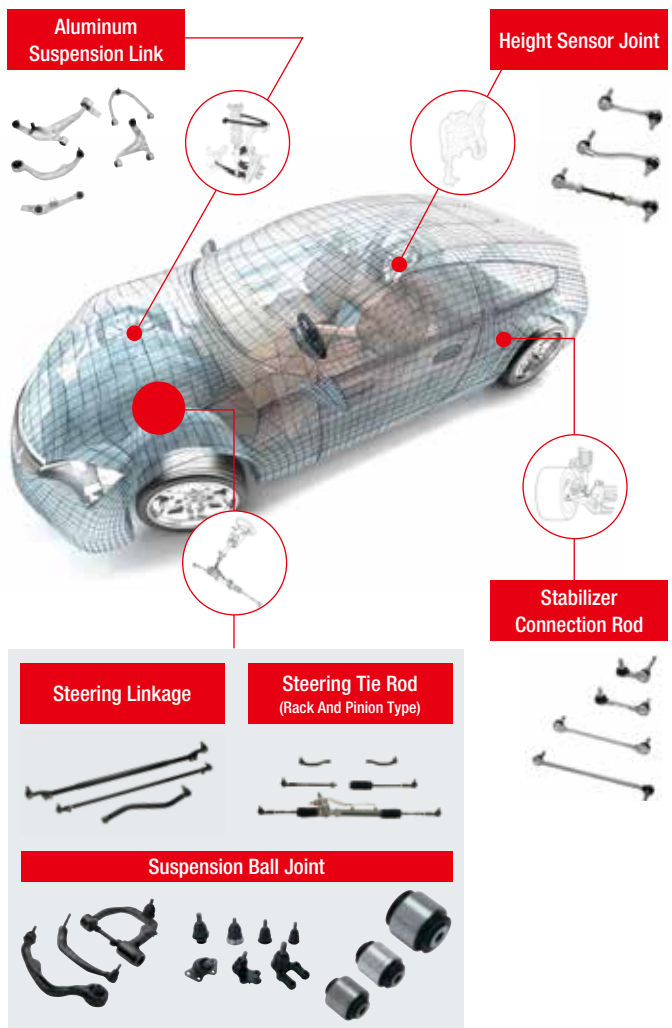
Business Environment and Business Expansion Activities

Expected in the global automotive market over the medium-to-long-term are expansion in the number of production regions and significant growth in automobile demand within emerging markets. 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.

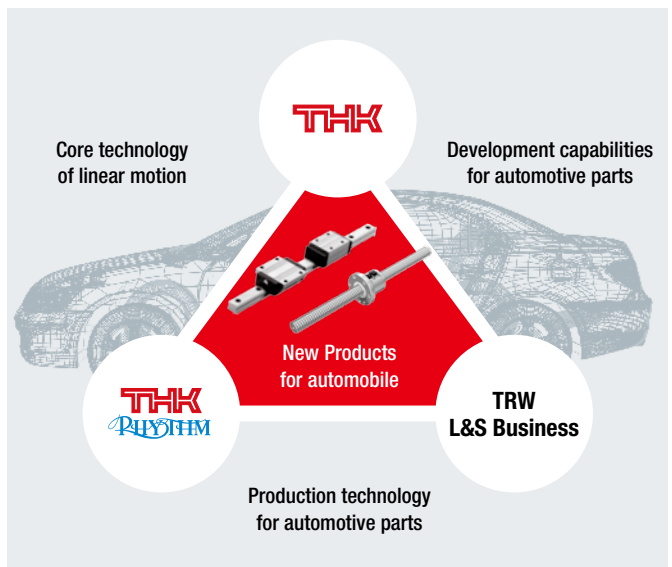
In fiscal 2014, the FAI Division worked aggressively in unison with THK RHYTHM to expand sales across the world and was able to bring about an increase in the number of adoptions for its products compared with fiscal 2013. In addition to uncovering opportunities with existing customers on an ongoing basis, the THK Group will promote business cultivation in Asia, where particularly robust demand is expected.

Following the transfer of the European and North American linkage and suspension (L&S) business from TRW Automotive Inc., the Company will benefit from the global-level strengthening of all its competencies in development, production and sales, and will work to capture further business opportunities. Moreover, adding to THK's linear core technologies, THK RHYTHM's automotive component manufacturing technologies, and TRW's development capabilities and manufacturing technologies for automotive components, the Group will be redoubling its R&D efforts to bring about the wider adoption of its linear motion products, including LM guides, which are regarded as critical automotive safety components.

Product Lineup: Transportation Equipment



To the Full-scale Application of LM Products for Automotive Parts



IMT Division

IMT

Innovation Mechatronics Technology

IMT Division Overview

Leveraging THK's original concepts and innovative technologies, the IMT Division works to expand business in electric actuators, the market for which is expected to expand in the years ahead, and THK Group unit products. The base technologies in the mechanical slider unit, one of the elements that make up an electric actuator, are LM guides and ball screws, which are THK's core products. A pioneer in LM guides and the manufacturer that leads the world in terms of the know-how accumulated in these products, THK possesses significant advantages in the market, as THK electric actuators are made up of those same high-quality LM guides and ball screws. In addition to these products, the IMT Division is planning to develop and supply optimal components for next-generation robots.

Operating Conditions and Business Expansion Activities

Against the backdrop of the advances made in recent years in enhanced productivity and diverse functionality of industrial machinery as well as the developing trend toward automation on production lines, it is believed that the significant increases in demand for actuators will continue. Of the three types of actuator—hydraulic, pneumatic and electric—it is expected that demand for the particularly energy-efficient electric actuator will rise from the environment-friendliness point of view.

In fiscal 2014, we developed new electric actuator products tailored to various applications, made deeper inroads into the capital goods industry by enterprising sales activities that integrated technologies and sales, and worked on new business development in the community and general living environment areas. In the years to come, we will continue to focus on the development of electric actuators capable of fulfilling ongoing market needs.

In the robot field, where growth is expected in the coming years, we will enterprisingly encourage developments, such as the April 2015 opening of "Risokata," our showroom for next-generation industrial robots. Moreover, naturally reinforcing our business systems in Japan, we will work on full-scale globalization in the Americas, Europe and Asia. Particularly in Asia, where market expansion is anticipated, we will vigorously work to build the foundations of a local production and sales system.

Product Lineup: Electric Actuator

Economy Series

Optimized for air cylinder replacement



Compact Series

Compact, high rigidity



Universal Series

Ideal for transport of heavy loads



Super FA Series

Optimized for high takt time operations



Clean Series

Optimized for clean environments



Multi-Axis Series

Optimized to reduce the number of processes



Press Series

Optimized for press fitting



Controller Series



Linear Motor Series

Optimized for high speed, high acceleration/deceleration, multisliders



Precision Stage Series

Optimized for mission-critical parts of equipment



"Risokata," our showroom for next-generation industrial robots

Creating even more ideal forms out of ideal forms

NEXTAGE Works
Side by Side
With People

