
Third Party Opinion

I had the opportunity to preview THK's CSR Report 2017/2018. I was left with the impression that THK is making steady efforts in the three core areas of its management structure, its involvement with society, and its harmony with the environment to achieve its corporate philosophy of *providing innovative products to the world and generating new trends to contribute to the creation of an affluent society*. I found the "In Our Customers' Words" article especially interesting. This report clearly shows how customers collaborate with THK to manufacture products in new fields such as medical equipment, renewable energy, seismic isolation and damping systems, and robotics.

I first began working with THK twenty years ago, when their Linear Motion Systems, which had been used for machine tools, began being adopted for use in seismic isolation for buildings. The idea of seismic isolation had long been around, but the current seismic isolation system stemmed from the invention of laminated rubber bearings in Western Europe in the latter half of the 20th century. Seismic isolation was an imported concept for earthquake-prone Japan. However, THK's seismic isolation systems are a Japanese invention that expands the possibilities for seismic isolation. The fact that seismic isolation and damping has now become a pillar of THK's business is truly incredible.

The Nihon University College of Science and Technology's Ochanomizu campus where I work is currently constructing a new building with a combination of seismic isolation and damping. The concept for this building's structural design was to give it the structural longevity to last 100 years, to make it highly durable and earthquake-resistant so that it could still maintain its function and continue to be used even after a major earthquake. It has THK's Linear Guide CLB installed for the seismically isolated layer, and the upper structure uses the D.M. damper (i-RDT), which is the world's first partial mode damping system.

THK's approach is also well exhibited by the two-dimensional Seismic Isolation Module Model TGS, which was introduced several years ago. There are other products out there that are intended for use in seismically isolated floors or seis-

mic isolation platforms and marketed as being specifically for equipment. The key is having a seismically isolated floor that functions dependably. What is special about this equipment is that the tried-and-true LM Guides are used as mechanical components in the support system, and the restoring and damping forces can be designed to match predicted seismic motion and actual conditions of use. Even more importantly, its performance has been verified through three-dimensional vibration testing that simulates seismic motion from three directions. According to the report, these products proved useful to a customer in implementing their BCP during an actual disaster (the 2016 Kumamoto Earthquakes), so you can call this an example of THK contributing to society through its superior products.

What I have just described is a reflection on my experience with THK in my own field of expertise, but by looking at this report, I was able to see that THK is pursuing this same kind of collaborative relationship with customers in many new fields, such as medical equipment, renewable energy, and robotics.

Presently, humanity is facing impending population, resource, and environmental problems. What has become particularly clear in recent years is that a flood of information has seemingly caused the trust between regular citizens and corporations, experts such as scientists and engineers, and even the state itself to waver. With society being inundated by information, it is becoming more difficult for corporations, subject-matter experts, and countries to fulfill their responsibility of providing explanations. This is an era where the recommendations of experts are not understood by society, where corporations can fall because of their failed response to problems. If the trust between citizens and corporations, experts, and the state falters, it becomes difficult to solve challenges on a worldwide scale. Humanity seems to face not just issues of population, resources, or the environment, but those of the fragility of civilization, as well. It is in this era that CSR activities will play an ever more important role. I hope that THK, as a trusted group of experts and a trusted corporation, will further enrich and enliven its CSR activities and continue to work with its stakeholders to support the development of society.



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Joined Sumitomo Construction Co., Ltd., in 1978, which became Sumitomo Mitsui Construction Co., Ltd., after a merger in 2003. Involved in structural design for buildings, structural engineering development, seismic isolation/damping structures design, and seismic isolation/damping technology development. Became associate professor in the Department of Architecture in the College of Science and Technology at Nihon University in 2007. Began current position of professor in 2011.

Specializes in seismic isolation and damping structures as well as structural vibration control, especially mode control utilizing dynamic mass. Aims to achieve long-lasting structures with structural response control through research and development in these fields.