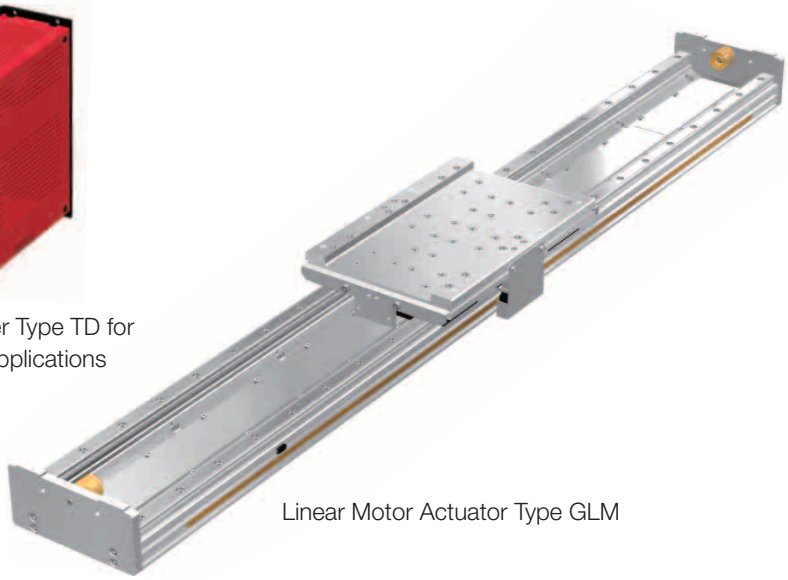
Servo Amplifier Type TD for linear motor applications



Linear Motor Actuator Type GLM

Servo Amplifier Type TD for linear motor applications provides increased boost and also delivers superior performance in terms of positional control based on a proprietary control algorithm. A specialized design maximizes the advantages of the linear motor to deliver high speed and acceleration along with superior constant velocity capabilities.

A series of original products contributing to industrial development

THK's business philosophy is "providing innovative products to the world and generating new trends to contribute to the creation of an affluent society." This thinking has guided our drive to be a creative development-driven enterprise, enabling us to develop a stream of original products since our establishment in 1971.

THK developed the world's first linear motion (LM) guide. For the first ten years after we started production and sale of these products in 1972, LM guides were primarily used in machine tools. During this period we developed a series of new products to fulfill our customers' needs for increased precision and lower cost. Other industries such as manufacturers of semiconductor production equipment and industrial robots then began to adopt our products. In turn we developed new products that were optimized for customer-specific applications and operating environments in these sectors. And in doing so we also made a contribution to industrial development.

In 1996, we pioneered the development of the world's first-ever LM guide with caged ball technology, an advance that enabled LM guides to operate without maintenance for much longer periods. At the time, although caged technology was already common in rotary bearings, the problem was that these bearings had to cope with both linear and circular movements. This made it extremely difficult to develop ball cages with sufficient durability to move along straight lines or curves. THK demonstrated superior technical prowess in overcoming this issue. LM guides based on caged ball technology not only provide the benefit of long-term maintenance-free use, but have also made a significant contribution to the development of high-speed, low-noise industrial machinery with longer productive lives, particularly in the machine tool and semiconductor production equipment sectors. Today, we continue to develop products that use cage-embedded technology. Besides LM guides, this range has expanded to include ball screws, ball splines and hybrid units combining LM guides with ball screws.

A highly developed R&D system

Around 150 people are engaged in the development of highly innovative products on a daily basis. In October 2006, we reorganized the R&D function to reinforce the links between the various departments. The Engineering Division organization chart is shown on the next page.

The departments Research and Development I and II play major roles in new product development, which is organized on a project basis to expedite the realization of commercial products. Research and Development I is the department responsible for developing LM guides, ball screws and other components. Its basic product technology development programs work on a five-year horizon. Other programs seek to make functional improvements to existing products, create completely new products, or develop custom-made products that are specific to a certain customer's requirements. Research and Development II develops hybrid units and electronics-related technology.

Fiscal 2006 major achievements

Major R&D achievements in fiscal 2006 included the development of a new model of linear motor actuator and of small-scale servo amplifiers. While the linear motor market is growing steadily, THK forecasts that it will expand in the future to around ten times its current size. Within this high-potential market we have already acquired a solid reputation for the breadth of our product lineup and for high-level product performance. The addition of a new actuator model will help to strengthen our competitive position in the market significantly.

Following the fiscal 2005 development of the servo amplifier type TD, in fiscal 2006 we successfully developed a new miniature servo amplifier specialized for use in linear motor applications. While demand for linear motor actuators expands, increasingly customers are also demanding products that satisfy requirements such as high speed, improved acceleration and low noise. These new types of servo amplifier are important developments because they promise to boost our sales of linear motor actuators.

During fiscal 2006 we also increased our lineup of products and technologies to meet specific environment-related needs. In addition to further expanding the range of ceramic LM guides, we also broadened our offerings of medium-to-low vacuum lubrication systems and oil-free LM guides.

Fiscal 2007 goals and programs

In fiscal 2007, our goals are to accelerate the pace of development further and to increase the number of products in development. In addition, besides focusing on ongoing projects we also plan to invest more heavily in basic development programs to create the products needed in five years' time.

At the same time, we are continuing to build our development capabilities on a global scale. In fiscal 2006, we upgraded our testing and research facilities at our factory in Europe and created a system to enable us to respond to local testing requests more rapidly. We also completed certification procedures for LM guide-related technical standards in Germany. Going forward, as we continue to develop global production and sales systems we aim to optimize our development set-up across the four core operating regions of Japan, the Americas, Europe and Asia.

Diagram of Engineering Division (As of March 31, 2007)