

# THK's History

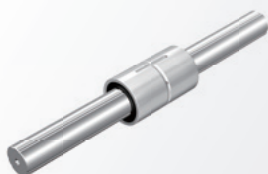
THK CO., LTD. manufactures and supplies vital machine components around the world. THK products help to convert slippage into controlled rotary motion, enabling parts of machinery to move smoothly, easily, and precisely with linear motion. As a company focused on creation and development driven by its corporate philosophy of *providing innovative products to the world and generating new trends to contribute to the creation of an affluent society*, THK has continued to focus on the development of a variety of products, including the Linear Motion (LM) Guide, since its establishment in 1971.

## The 1970s: Establishment and the Early Years

While rotary motion was commonly achieved through rolling contact utilizing rotary bearings, linear motion was considered difficult to achieve through rolling contact, and it primarily came from sliding contact instead.

In 1971, THK developed the ball spline, which enabled a higher level of linear motion precision and performance. This ball spline was the predecessor to THK's current mainstay product, the LM Guide, which was first introduced in 1972.

In 1978, the Company's products were adopted by a U.S.-based pioneer of the machining center and world-class leader of its day. This breakthrough was the catalyst for the increased use of the LM Guide in machine tools.



**Ball Spline**

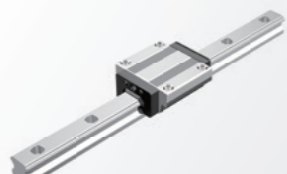
Developed in the same year that THK was established, the ball spline was the precursor to the LM Guide. This revolutionary product allows balls to roll along a rounded groove machined into the ball spline's shaft, boosting the load that the device can tolerate and permitting the transmission of torque.

- 1971 THK established
- 1972 Production and sale of the LM Guide began
- 1977 Kofu Plant (JPN) established

**Revenue**  
(Millions of yen)  
1972–1990: Non-consolidated net sales  
1991–2021: Consolidated revenue

## The 1980s: Significant Developments in Factory Automation (FA)

The 1973 oil crisis saw the demise of heavy industry, pushing technology-based industries, such as the automotive, semiconductor, and home appliance industries, increasingly to the fore. Buoyed by depreciation in the value of the yen as well as the outstanding quality of products manufactured in Japan, export volumes to Europe and the United States climbed steadily. Under these circumstances, there was a demand for mass production of high-quality products. With FA advancing across production front lines, machine tool production volumes increased, and the proportion of advanced machine tools with numerical control (NC) saw steady growth. Against this backdrop, the application of the LM Guide experienced explosive growth.



**LM Guide**

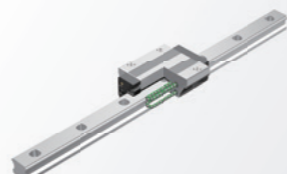
Developed utilizing the structure and mechanism of ball splines, the LM Guide today is THK's mainstay product. The use of the LM Guide by a major U.S.-based machine tool manufacturer spurred a significant increase in the application of these products in machine tools.

- 1981 THK America, Inc. (USA) established
- 1982 THK Europe GmbH (GER) established
- 1984 Gifu Plant (JPN) established
- 1985 Mie Plant (JPN) established  
Yamaguchi Plant (JPN) established
- 1989 THK listed on over-the-counter (OTC) market  
THK TAIWAN CO., LTD. (TPE) established

Expansion of numerically controlled (NC) machine tools and factory automation

## The 1990s and Onward: The Rise of the Electronics Industry

During the 1990s, the use of the LM Guide in semiconductor manufacturing equipment surged dramatically, in line with the increase in semiconductor demand. Entering the 2000s, amid the proliferation of mobile devices and digital home appliances, as well as the upswing in demand for semiconductor, flat panel display, and other similar manufacturing equipment, there was a rise in the use of the LM Guide, especially the second-generation Caged Ball LM Guide. In tune with the increasing globalization of manufacturing, THK accelerated its business development around the world.



**Caged Ball LM Guide**

The Caged Ball LM Guide was developed as the second-generation LM Guide. By keeping the balls in place, the use of caged ball technology extends service life, reduces noise, and enables long-term maintenance-free operation when compared with the first-generation LM Guide.

- 1991 Yamagata Plant (JPN) established
- 1996 Production and sale of the Caged Ball LM Guide began  
DALIAN THK CO., LTD. (CHN) established
- 1997 THK Manufacturing of America, Inc. (USA) established

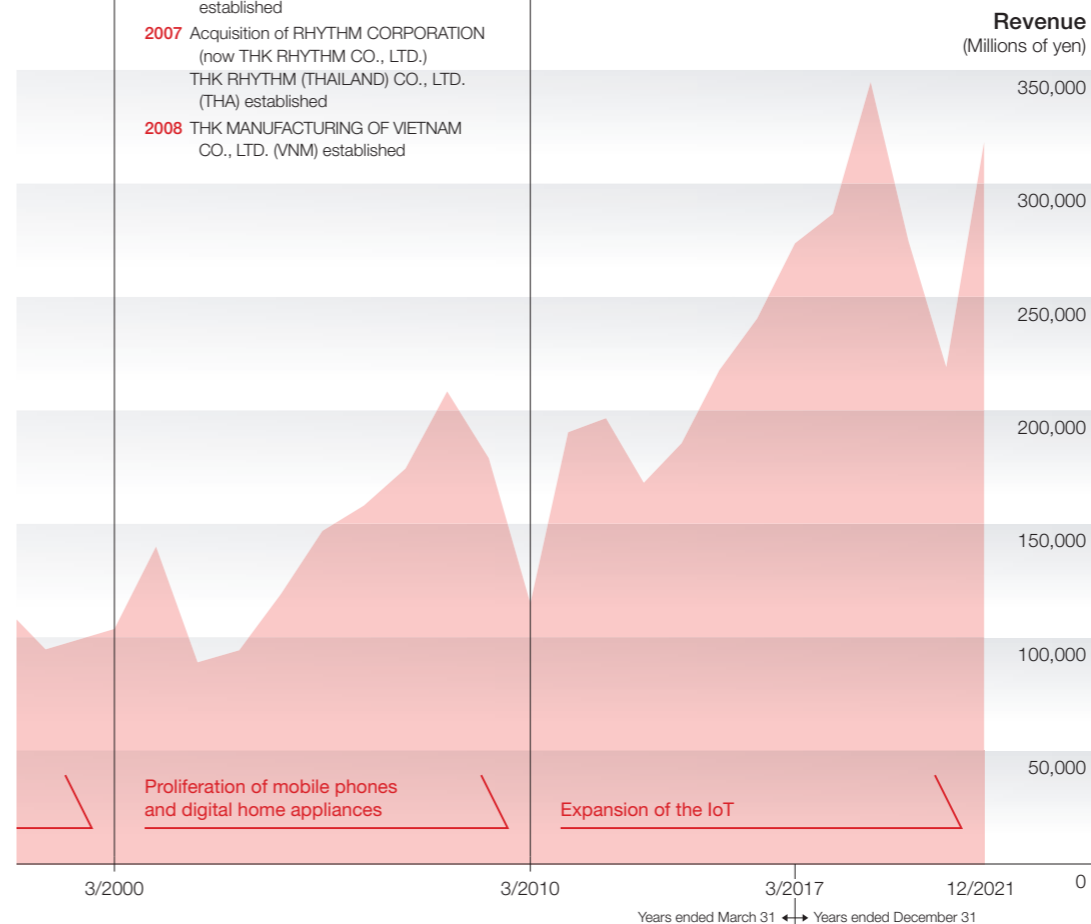
Rise of the electronics industry  
Growth of semiconductor manufacturing equipment industry

Toward a New Era

## Achieving Management Targets and Expanding Business Domains by Implementing Three Growth Strategies

As globalization has progressed, the market around THK has also steadily expanded with the rapid development of new technologies such as AI and the IoT. Under these circumstances, the Company aims to expand its business domains through three growth strategies: expanding its geographical range through *full-scale globalization*; broadening the range of its product applications through the *development of new business areas*; and fully utilizing AI, the IoT, robots, and other technologies in a variety of ways through a *change in business style*. While moving forward with those strategies, THK is accelerating the initiatives being conducted in its industrial machinery and automotive and transportation businesses to achieve the following management targets by the end of the 2026 fiscal year: consolidated revenue of ¥500 billion, an operating income of ¥100 billion, an EPS of ¥590 and an ROE of 17%. Furthermore, the Company will aim to achieve not only these management targets, but also long-term growth and an increase in its corporate value as it contributes to the creation of a sustainable society.

- 2000 THK Manufacturing of Europe S.A.S. (FRA) established
- 2001 Production and sale of the Caged Roller LM Guide began  
THK listed on the first section of the Tokyo Stock Exchange (TSE)
- 2003 THK (SHANGHAI) CO., LTD. (CHN) established
- 2004 THK MANUFACTURING OF CHINA (WUXI) CO., LTD. (CHN) established
- 2005 THK MANUFACTURING OF CHINA (LIAONING) CO., LTD. (CHN) established  
THK (CHINA) CO., LTD. (CHN) established
- 2006 THK LM SYSTEM Pte. Ltd. (SIN) established
- 2007 Acquisition of RHYTHM CORPORATION (now THK RHYTHM CO., LTD.)  
THK RHYTHM (THAILAND) CO., LTD. (THA) established
- 2008 THK MANUFACTURING OF VIETNAM CO., LTD. (VNM) established
- 2011 THK RHYTHM CHANGZHOU CO., LTD. (CHN) established  
THK RHYTHM MALAYSIA Sdn. Bhd. (MYS) became a consolidated subsidiary
- 2012 THK RHYTHM MEXICANA S.A. DE C.V. (MEX) established  
THK India Private Limited (IND) established
- 2015 Purchased the European and North American L&S business from TRW Automotive Inc. and established THK RHYTHM AUTOMOTIVE (TRA)
- 2017 TRA Holdings, CO., LTD. (JPN) established



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Please refer to THK's website for the Financial Section.  
<https://www.thk.com/eng/ir/annual/>

### Disclaimer

This report contains forward-looking statements from THK CO., LTD. and its consolidated subsidiaries pertaining to plans, forecasts, strategies, and results. These forward-looking statements are based on currently available information, and actual results may vary significantly from the forward-looking statements contained in this report due to a range of variable factors.

The THK Group decided to adopt IFRS beginning with the 2019 fiscal year. For the purposes of comparison, the results for the 2018 fiscal year are also noted in accordance with IFRS.

As it was the year during which THK transitioned to a new reporting period, the data for the fiscal year that ended December 2017 reflects a modified reporting period that includes 9 months from consolidated companies whose fiscal years ended in March and 12 months from consolidated companies whose fiscal years ended in December.