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 rolling 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

3/1972

(Millions of ven)

1972-1990: Non-consolidated net sales

1991-2020: Consolidated revenue

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

3/1980

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. Buoved 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

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 halls in place, the use of caged hall 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 I M Guide began

DALIAN THK CO., LTD. (CHN) established 1997 THK Manufacturing of America, Inc. (USA)

> Rise of the electronics industry ufacturing equipment industry

3/1990

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 Al 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: consolidated revenue of ¥500 billion, an operating income of ¥100 billion, an ROE of 17%, and an EPS of ¥560. 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 (THAII AND) CO., ITD.

(THA) established 2008 THK MANUFACTURING OF VIETNAM CO., LTD. (VNM) established

eration of mobile phones

and digital home appliances

3/2000

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. (MFX) 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

Revenue

(Millions of ven)

350,000

50,000

12/2020

26 Corporate Governance 30 Involvement in Society

32 Harmony with the Environment

33 Subsidiaries & Affiliate

34 Corporate Data

CONTENTS

02 Value Creation

06 Financial and

and Strategies

08 To Our Stakeholders

Long-Term Growth

Geographic Region

25 THK's Response to

the Coronavirus

26 Management Base

(COVID-19)

12 Activities to Foster

Medium- to

16 Research and

Development

18 THK's Products

22 Review by

04 Three Key Characteristics

Non-Financial Highlights

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 THIK 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.

3/2010

Expansion of the IoT

3/2017

Years ended March 31 ↔ Years ended December 31