# **CORPORATE HISTORY**

Net Sales (Millions of yen) 300.000 -1971 1981 THK established THK America, Inc. (USA) established 1972 1982 Production and sale of LM guides began THK Europe GmbH (GER) established 1977 1984 KOFU Plant (JPN) established GIFU Plant (JPN) established 250.000 -1985 MIE Plant (JPN) established YAMAGUCHI Plant (JPN) established 1989 THK listed on over-the-counter (OTC) market 200.000 -THK TAIWAN CO., LTD. (TPE) established 150,000 -100,000 -Expansion of numerically controlled (NC) machine tools and factory automation 50,000 -1970s 1980s 0 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992

# The 1970s: Inauguration and Initial Period of Set Up

While rolling contact utilizing rotary bearings was a standard method for accomplishing rolling motion at this time, significant difficulties were encountered in introducing a rolling component to linear motion (LM).

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 flagship 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. With this breakthrough, the use of LM guides in machine tools grew from strength to strength.



### **Ball Splines**

Developed in the same year that THK was established, ball splines are the precursor to the LM guide. This revolutionary product allows balls to roll along an R-shaped groove machined into the spline axle, which in turn boost the load that the device can tolerate and permits the transmission of torque.

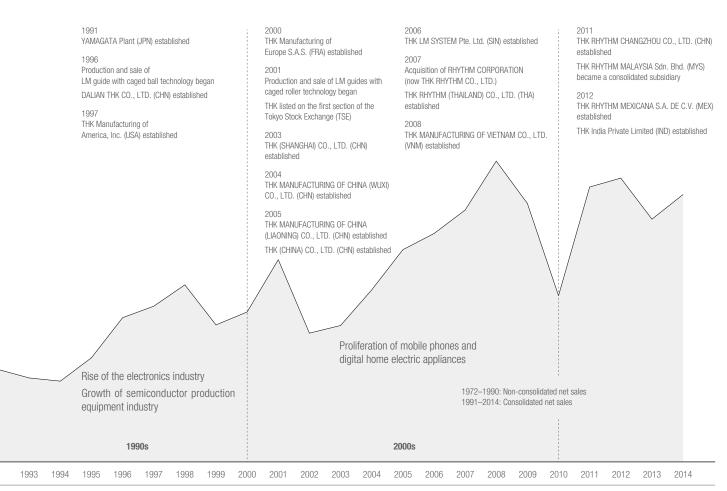
# The 1980s: Significant Developments in Factory Automation (FA)

The "Oil Shock" saw the demise of heavy industry, pushing the technology-based industries, such as automobiles, semiconductors and home electric appliances, 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, demand was high for the volume manufacture of quality products. With FA advancing across production frontlines, machine tool production volumes increased and the proportion of advanced machine tools with numerically controlled (NC) saw steady growth. Against this backdrop, the application of LM guides enjoyed explosive growth.



# LM Guides

Developed utilizing the structure and mechanism of ball splines, LM guides today represent THK's flagship product range. Benefiting from the use of the Company's LM guides by a major U.S.-based machine tool manufacturer of its day, the application of THK's products in machine tools has seen significant growth.



Years ended March 31

# The 1990s:

# The Rise of the Electronics Industry

During the 1990s, the number of LM guides used in semiconductor production equipment surged dramatically in line with the increase in semiconductor demand. Entering the 2000s, amid the proliferation of mobile devices and digital home electric appliances as well as the upswing in demand for semiconductor production, flat panel display production and related production equipment—products that applied LM guides—focusing mainly on second-generation LM guides with caged ball technology increased. In tune with the relentless advance of manufacturing globalization, THK accelerated its business development globally.



#### LM Guides with Caged Ball Technology

LM guides with caged ball technology were developed as the next generation in their line. In keeping the balls in place, the use of ball cage technology extends service life, reduces noise and enables long-term maintenance-free operation compared with first-generation LM guides.

#### Future Growth:

# Increase in Demand for Machinery in Developing Countries as well as Progress Toward Electric-Powered Living

Looking at changes in THK's external operating environment, the Company is witnessing an increase in the number of industrial machinery produced. This is largely attributable to the ongoing development of newly emerging countries. At the same time, the impetus provided by higher interest in environmental protection is resulting in the move toward electric-powered living across a wide spectrum of areas.

In response, and as a part of THK's efforts toward Full-Scale Globalization, the Company will further fortify its integrated manufacturing and sales systems in the four geographic regions of Japan, the Americas, Europe and Asia. Particularly, the Company will accelerate the pace of sales network expansion with a greater sense of urgency throughout developing countries including China, which are anticipated to drive increasingly toward FA. Complementing this endeavor, THK will also upgrade and expand local production capacity.

In its efforts to promote the Development of New Business Areas, the Company will bolster the activities of both the FAI and ACE divisions. At the same time, we will work to capture the forecast surge in demand, associated with the projected shift toward electric-powered living, through the IMT Division, which was established in 2009. THK recognizes that efforts to reduce CO<sub>2</sub> emissions will become an increasingly essential component of business. This in turn is expected to underpin the growing emphasis on electric-powered products as the market focuses increasingly on energy efficiency across wide-ranging areas. Under these circumstances, components that complement this shift toward electric-powered products will gain in importance. In its efforts to take full advantage of these favorable conditions, THK will aggressively bolster its sales and marketing activities with the aim of expanding sales.

Taking all of the aforementioned into consideration, THK plans to increasingly realize the vast potential of its products, including LM guides. In this regard, we remain committed to achieving the long-term management target of ¥300 billion in consolidated net sales, an operating margin of 20% and a return on assets (ROA) of 15%.