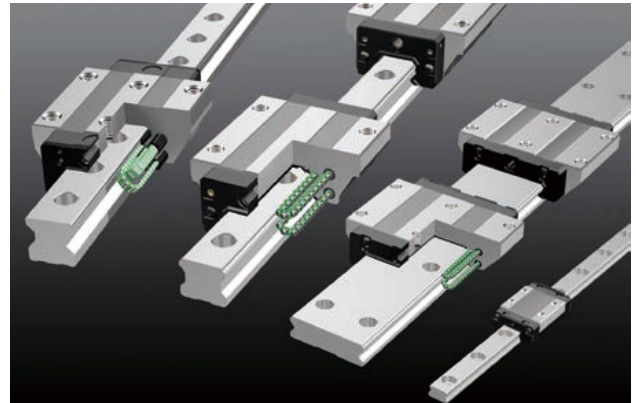


Innovative Products

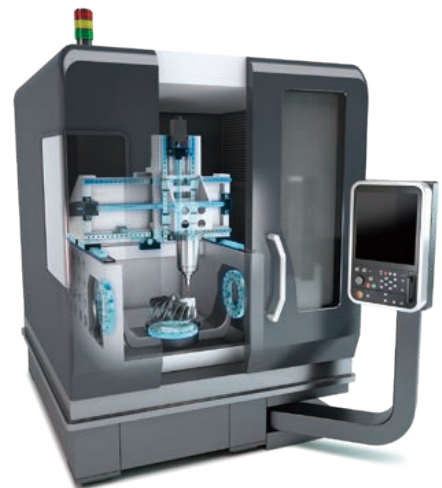
THK was the first company in the world to develop the Linear Motion (LM) Guide, which is based on an original concept and innovative technology. THK also develops, produces, and supplies to the world a range of other vital machine components, including ball screws and electric actuators, as well as automotive and transportation components, such as L&S (Linkage and Suspension) products.



LM Guides

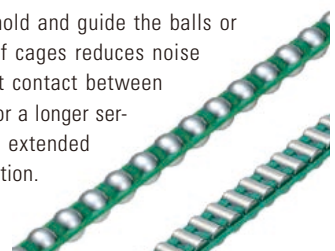
LM Guides are machine components that convert sliding motion into rolling motion, enabling machine parts to move smoothly, easily, and precisely in a straight line. As a result, LM Guides have facilitated the increased precision, rigidity, speed, and energy efficiency of a wide range of industrial machinery. With the introduction of products such as the Caged Ball LM Guide in 1996 and the Caged Roller LM Guide in 2001, the Company has continued to improve every aspect of the LM Guide and further expand its applications. As a result, LM Guides with caged ball and caged roller technology are now vital components of machine tools, semiconductor manufacturing equipment, and other industrial equipment.

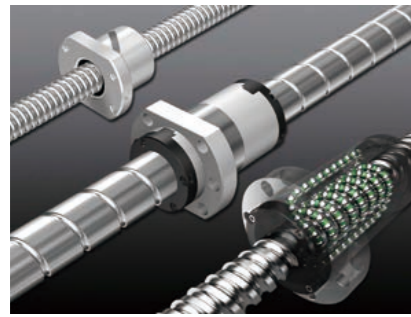
Machine tool
(Machining center)



Ball Cages and Roller Cages

The cages are resin parts that hold and guide the balls or rollers as they move. The use of cages reduces noise and friction by preventing direct contact between the balls or rollers. This allows for a longer service life, reduced noise, and an extended period of maintenance-free operation.

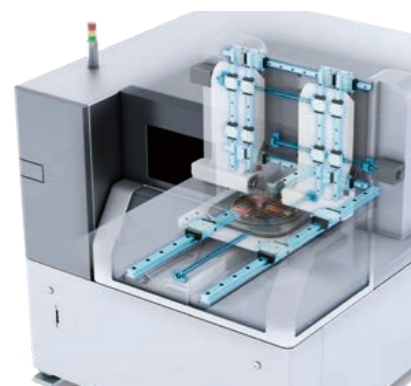




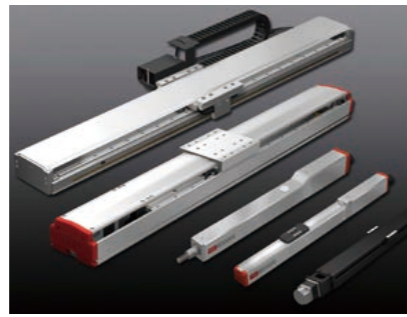
Ball Screws

Ball screws are machine components that function by causing a large number of balls to circulate between a screw shaft and a nut. This mechanism efficiently converts rotary motion into linear motion. With the Caged Ball Screw, THK has incorporated caged ball technology into its existing ball screw designs, thus helping to achieve longer life with reduced noise and provide an extended period of maintenance-free operation.

As a result, these products are now essential elements in machine tools, industrial robots, semiconductor manufacturing equipment, and other industrial equipment. THK also offers ball screws that are designed to support high loads, making them ideally suited for replacing the hydraulic cylinders used in equipment such as injection molding machines, presses, and die casting machines.



Semiconductor manufacturing equipment (Dicing saw)

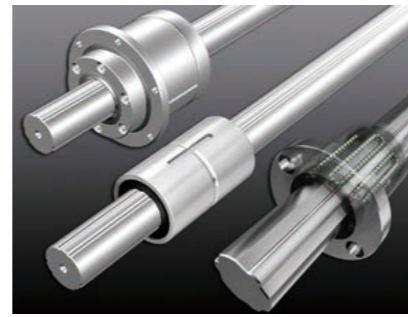


Electric Actuators

Electric actuators are hybrid products combining a guide component such as an LM Guide with a ball screw, linear motor, or other drive component. In industries such as electronics, there is an increasing need to shorten development and manufacturing lead times. Modularization allows these electric actuators to meet such requirements by simplifying the design and reducing assembly time. THK offers a varied lineup of electric actuators ranging from basic, cost-effective units to high-end components designed to operate with high precision or perform to clean room specifications. Such advanced electric actuators have become indispensable parts in equipment used in the manufacture or inspection of semiconductors and liquid crystal displays.



Dual-arm robot



Ball Splines

Developed in 1971, the same year that THK was established, ball splines were the precursor to the LM Guide. In these products, balls roll along a rounded groove machined into the spline's shaft. This critical advance boosts the load that the device can tolerate and permits the transmission of torque, resulting in a revolutionary linear motion system. Compared with the products that came before, these ball splines boosted the permissible load by a factor of 13 and service life by a factor of 2,200. THK offers an extensive lineup featuring ball splines with integrated ball screws and other products that are used in a variety of equipment, including industrial robots, medical equipment, and chip mounters.



Horizontal articulated robot (SCARA robot)



Cross Roller Rings

Cross roller rings are roller bearings that feature internal cylindrical rollers arranged orthogonally so as to facilitate load bearing in every direction. The incorporation of the spacer cages between rollers prevents roller skew and friction between the rollers. Possessing high rigidity while maintaining a compact structure, cross roller rings are used in the rotating parts of many different types of industrial machinery, including the joint areas and rotating parts of industrial robots, as well as machining center swivel tables. Other applications include rotating parts of medical equipment and semiconductor manufacturing equipment.



Transfer robot

Suspension arms

Suspension ball joints

Height sensor joints

Steering tie rods (Rack and pinion)

Steering linkages

Stabilizer connecting rods

Automotive and Transportation Equipment-Related Products

Ever since the Company was founded, THK has continued to expand its lineup of L&S products, such as the link ball: a spherical slide bearing with a ball stud. Made from aluminum, THK's link balls are highly resistant to corrosion and wear. They are also considerably lighter than traditional steel parts. The Company's lineup of link balls has been widely adopted for use in a number of undercarriage systems, such as height sensors and the joint sections connecting stabilizers to the suspension.

Furthermore, Group companies THK RHYTHM and THK RHYTHM AUTOMOTIVE are actively engaged in producing L&S products, including steering and suspension components. In addition to the cold-forged ball joints that have been its mainstay, THK RHYTHM has expanded the range of products it offers to include aluminum links that integrate ball joints with aluminum suspension links. These critical safety components are held to the highest standards of quality and performance and help to enhance the safety and comfort of automobiles.