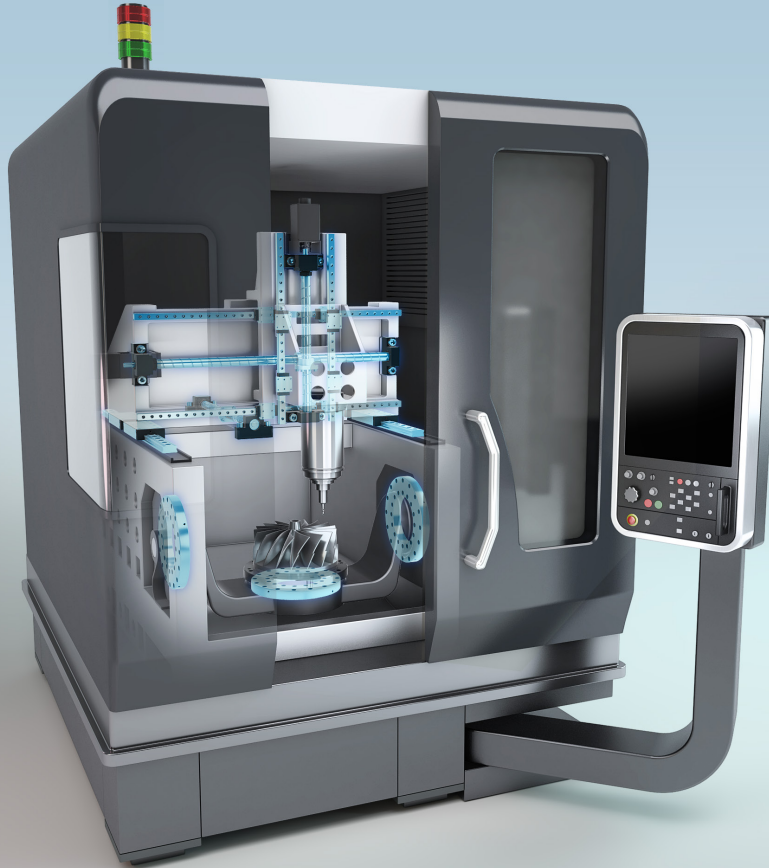


Machine Tool

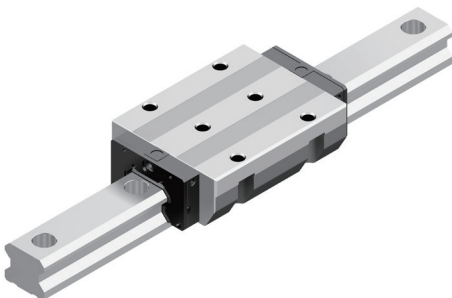


All the various parts used in machine tools are made by "mother machines" that produce machine parts themselves. Whether fine and complex or massive and heavy, the manufacturing precision of parts produced by machine tool is increasing at an accelerating pace. THK's linear motion systems help provide the guidance that makes this precision and speed possible.

Applications

Horizontal Milling centers, Milling machines, NC lathes, Plano millers, CNC hobbing machines, Surface grinding machines

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HRX

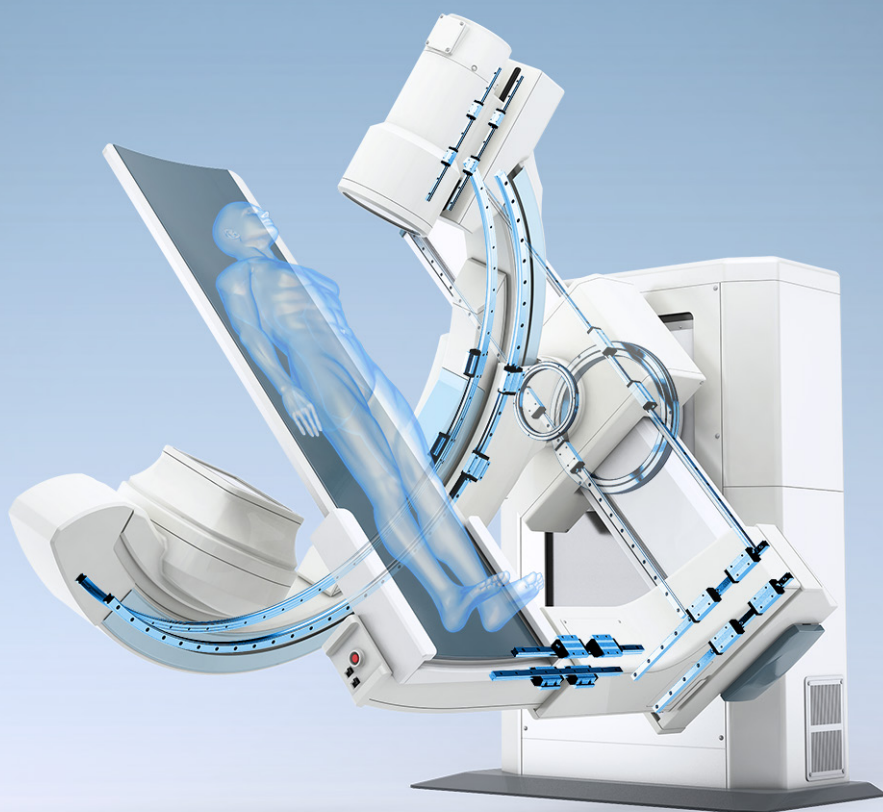
The HRX is a LM Guide that uses rollers as the rolling element for higher rigidity. Also, compared to our existing roller products, we have extended the overall length of the LM block and increased the number of load-bearing rollers to achieve improved static load rating.



BSM

The BSM ball screw has high-speed performance that exceeds prior full ball standards. The BSM achieves even higher load capacity with DN value 170,000 enabling higher machine speeds.

Medical



Advanced medical technologies are tools for doctors, and assistive devices reduce the burden on caregivers. Progress in medical services, including highly computerized medical apparatuses, protects people's lives. THK's products meet the highest reliability standards required for medical apparatuses.

Applications

X-ray equipment, Automatic hematological analysis equipment, Medical X-ray CT scanners

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KR/SKR

The KR/SKR LM Guide Actuator is a compact actuator with high rigidity and high precision that has an integrated LM Guide with a ball screw. Reductions in the number of parts and design man-hours can be realised by adopting the LM Guide Actuator.



RU/RB

This Cross-Roller Ring can receive loads in any directions with high rotational accuracy. Suitable for the joints of industrial robot and high precision rotary table.

Satellite



This observatory's telescope moves very slowly to observe the stars of the night sky. Vibration-free, smoothly moving linear guidance systems move quietly as they support the telescope and the observatory's dome (roof).

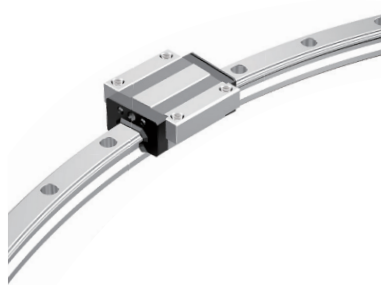
Applications

Planetary observation

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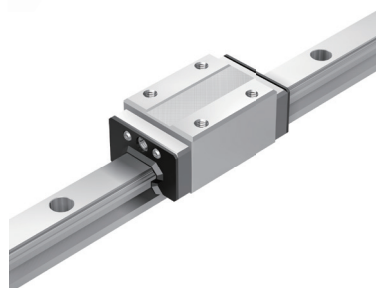


HCR



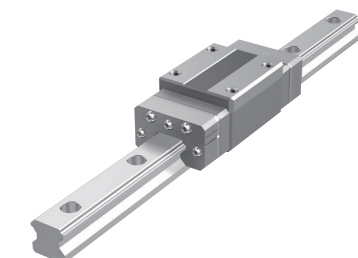
The HCR LM Guides allows clearance-free, highly accurate circular motion as opposed to sliding guides or cam followers. You can easily assemble this model simply by mounting the LM rail and LM blocks with bolts. It allows circular motion of 5 m or greater, which is impossible with swivel bearings.

HSR-M1



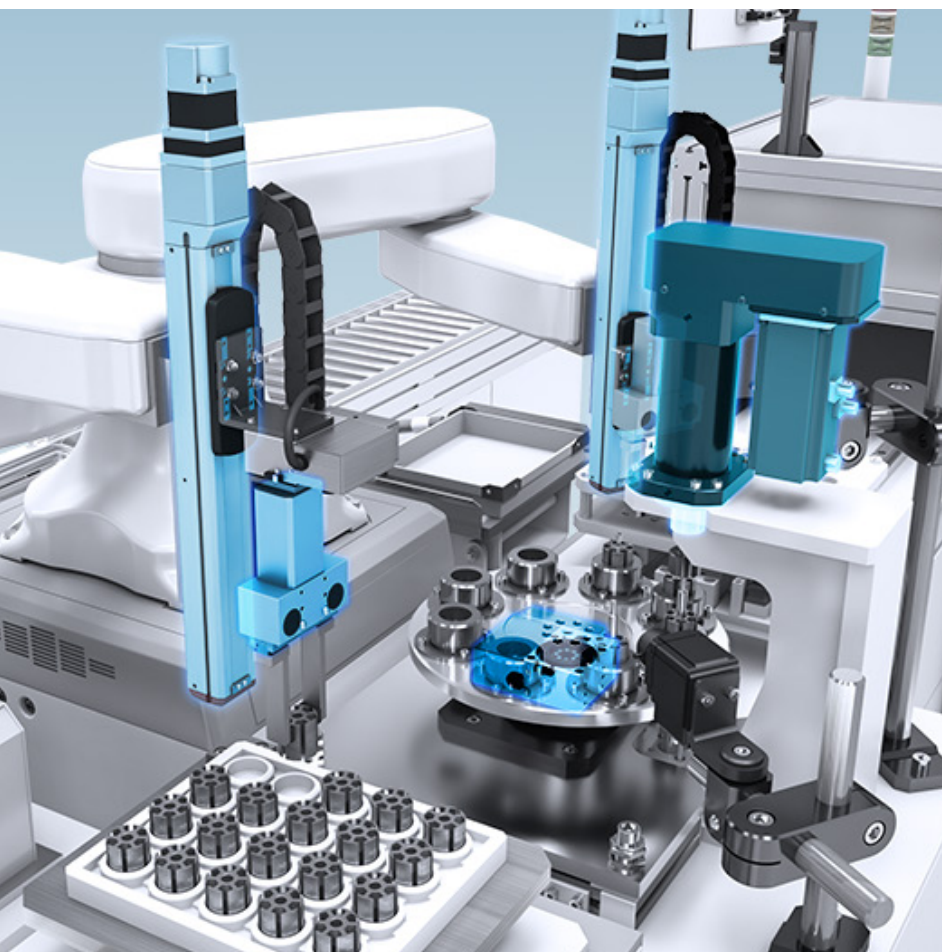
The HSR-M1 high temperature type LM Guide is capable of being used at service temperature up to 150°C thanks to THK's unique technologies in material, heat treatment and lubrication. Use of stainless steel in the endplates and high temperature rubber in the end seals achieves the maximum service temperature

HSR-M1VV



The HSR-MV1 LM Guide for Medium-to-Low Vacuum, highly effective in broad range of environments ranging from atmospheric pressure to vacuum (10^{-3} Pa). A newly developed dedicated labyrinth end seal and special grease, both specifically designed for medium-to-low vacuum work, help ensure stable rolling resistance.

Robotics



Robots are used in various industries to position workpieces very quickly and accurately. Some robots, not limited to orthogonal movements, have multi-joint assemblies letting them simulate the movements of human arms. These joint sections must have a high swing accuracy and high rigidity ensuring that sudden stops do not put them off-track, THK's unique products are powerful and small enough to meet those demands.

Applications

Arc welding robots, Scalar robots, Double-arm robots

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KSF/KRF



The KSF/KRF actuator are fully enclosed compact actuator, designed for dedicated controller.

The adoption of large diameter ball screw enables long service life as well as high acceleration/deceleration with improved process time

PC/PCT



The PC/PCT is an electric cylinder actuator it offers superior axial load rigidity. The bearing arrangement provides high resistance against compressive loads used in pressing/caulking machines

Aerospace



The aerospace industry demands high performance systems in unusual environments. THK's products developed for use in vacuums and other special operating environments are used in manufacturing equipment from spacecraft bodies to spacecraft seat mechanisms. The various problems that arise in the process of such special technological development can also often be provided by THK products.

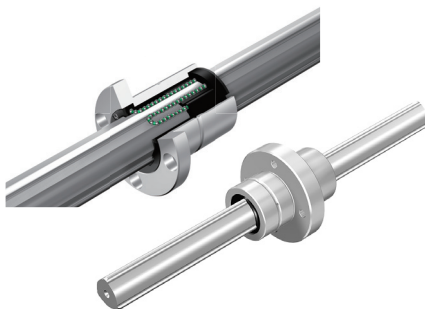
Applications

Control Stick, Business class seat, Landing gear, SLAT/FLAP

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SLF/LBR



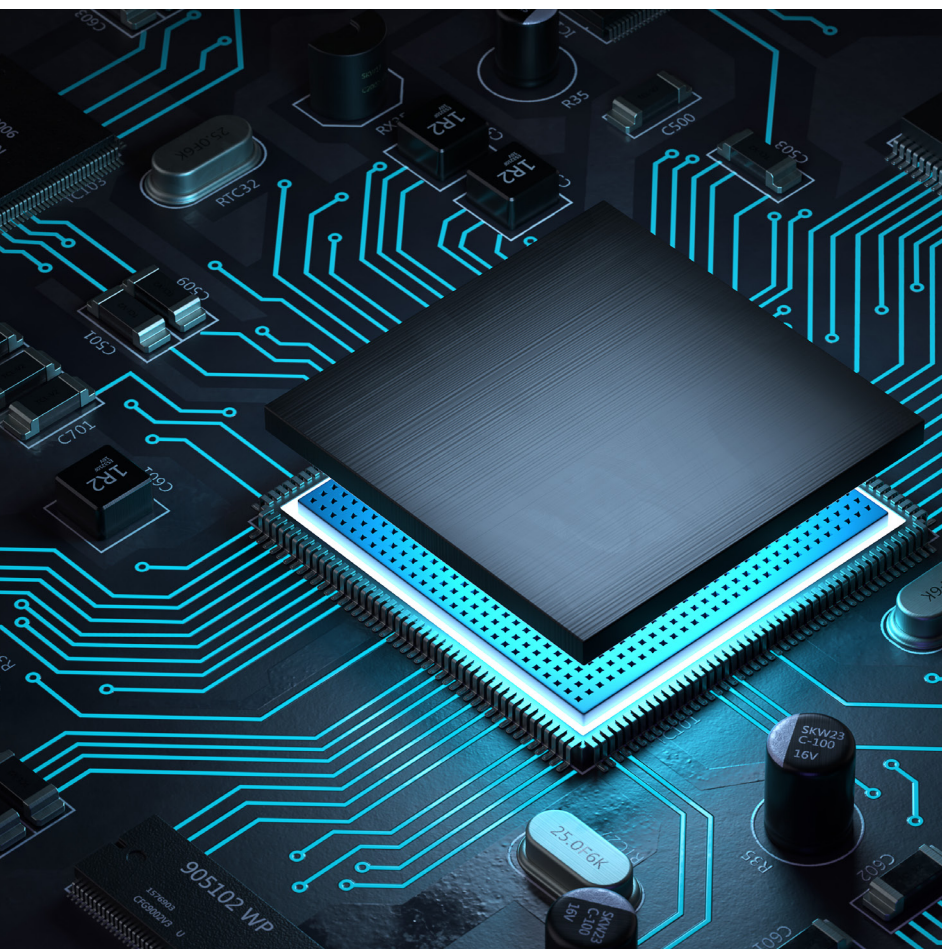
The SLF/LBR Ball Splines are rolling motion spline bearings that feature a load capacity greater than linear bushings because the balls roll in the grooves on the shaft. These innovative products transmit torque securely while enabling linear motion, used in push-pull control sticks of airplanes.

BTK/MTF



The BTK/MTF Ball Screws are flanged deflector type ball screws. Highly efficient feed motion is achieved because the balls roll between the screw shaft and the nut. Drive torque requirements are reduced to less than one-third of a conventional slide screw, offering a substantial power saving for the drive motor. It is used in actuation mechanism of the landing gear and SLAT/flap for flight control.

Electronics/IT

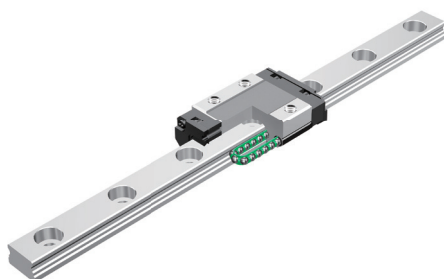


The semiconductor and LCD panel manufacturing equipment is essential for the production of all kinds of electric and electronic appliances, including PCs, cell phones and flat-panel televisions. THK's products can meet the high-technology need for fine movement control.

Applications

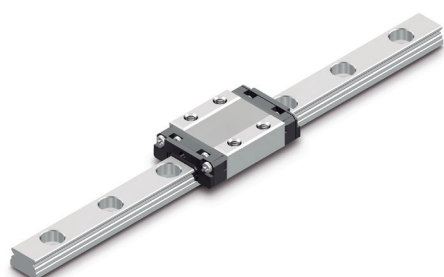
**LCD panel prober table units,
Glass substrate conveyor
equipment, IC Dicing saws etc.,**

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SRS

The SRS LM Guide is a miniature type with a compact structure. Part of the LM block is made of resin material to reduce weight. Also the ball cage eliminates friction between balls and retains lubricant, thus achieving low dust generation.



RSX/RSX-M1

The RSX LM Guide is a two-row gothic arch groove structure, is compact, can take loads in any direction, and can be used in a single axis where space is required or where moments act.