



ELSHIN INTERNATIONAL PTE LTD

耀迅国际私人有限公司

PRODUCT CATALOGUE

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The mark of linear motion. THK pioneered rolling linear motion technology and remains the global benchmark for precision, rigidity, and reliability in motion components.



LM Guide

The world's first rolling linear motion guide. High precision, high rigidity, and long service life across multiple variants.



Ball Screws

High-efficiency feed screws for precise linear motion. Drive torque less than one-third of conventional sliding screws across multiple types.



LM Guide Actuator

Integrated LM Guide and ball screw in one compact assembly. Reduces parts count, design time, and installation effort significantly.



Cross-Roller Rings

Compact bearings handling radial, axial, and moment loads in a single unit. Ideal for robotics and precision equipment.



Ball Spline

Performs linear motion and torque transmission simultaneously. Higher load capacity than standard linear bushings in multiple torque ratings.



Actuator

Complete range of electric actuators covering economy, compact, universal, and press series with controller options for easy integration.



THK Original Grease

A range of original greases formulated specifically for THK LM systems. Available in multiple variants covering general purpose, clean environment, high load, food equipment, and pharmaceutical applications.



Pick and Place Robot (PPR-LR3)

All-in-one process optimised pick and place robot with built-in force sensor, solenoid valves, and controller. Reduces cycle time and workpiece damage in electronic component assembly applications.

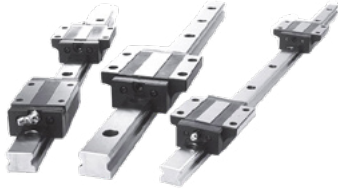


Linear Bushing

Compact and economical linear bearings for smooth linear motion along a shaft. Available in standard, open, and adjustable types to suit diverse industrial and automation applications.

**More products available. Contact us for the full range.*

BSQ develops and supplies precision linear motion components for semiconductor, medical, and factory automation applications. Known for competitive pricing without compromising on quality, BSQ offers a reliable alternative for businesses looking for high performance linear motion solutions.



Linear Guide

High quality linear guides for standard and heavy duty applications. Available in multiple series to suit varying load and precision requirements.



Miniature Linear Guide

Compact linear guides designed for space-constrained applications. Ideal for precision equipment requiring smooth and accurate motion.



Cross-Roller Guide

Rigid and precise cross roller guides available in slide, roller, rotary, and ball slide variants. Suitable for high accuracy positioning applications.



Stage

Manual, motorised, and dovetail stages for accurate positioning in automation and instrumentation. Suitable for semiconductor, optical, and research applications.



Support Units

Precision support units designed to complement BSQ linear motion systems. Ensures proper shaft end support for stable and accurate linear motion.



KSS specialises in miniature precision ball screws and actuators, certified to ISO 13485 for use in medical applications. With decades of expertise in miniature motion components, KSS delivers high precision and compact solutions for semiconductor, medical, and factory automation industries where space and accuracy are critical.



Ball Screw

Precision and rolled ball screws in miniature sizes for medical, semiconductor and automation applications. Available with integrated ball spline option.



Actuators

Compact linear actuators in external, captive, non-captive, and single axis configurations. Suitable for precise and reliable linear motion in tight spaces.



Electric Gripper

Compact electric gripper for precise gripping in automation and assembly applications. A clean and controllable alternative to pneumatic grippers.



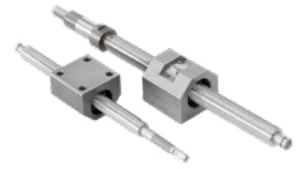
Support Units

Precision ball screw support units designed to ensure proper shaft end support for stable and accurate linear motion in KSS ball screw systems.



Peripherals

KSS original grease and stepping motor drivers to keep your ball screw system running smoothly and efficiently over the long term.



Special Specifications

Customised ball screws and lead screws built to specific requirements. Ideal for applications where standard sizes and configurations are not sufficient.

UNIMOTION *Slovenia*

Unimotion is a leading European manufacturer of linear motion solutions, known for combining competitive pricing with high performance. Their Plug and Drive approach makes it easy to configure and deploy complete motion systems quickly.



Linear Units

Ball screw and toothed belt driven linear units in mini and standard sizes. High load capacity, speed, and repeatability for multi-axis systems.



Electric Cylinders

Precision ball screw driven electric cylinders with non-rotating piston rod. High speed, accurate positioning, and high repeatability.



Linear Motors

Award-winning iron core linear motors with 30 to 50% higher force density. Available in 11 sizes with high and low speed versions.



Stepper Systems

Closed loop stepper system combining motor, encoder, drive, and cabling. Supports EtherCAT, Ethernet, and Profinet communications.



Moving Coil Actuators United States

SMAC specialises in precision programmable electric actuators based on patented moving coil technology. Force, position, and speed are fully programmable, making them ideal for high speed pick and place, testing, and inspection applications.



Linear Actuators
(LCA, LAL/LAS Series)

Compact moving coil actuators with patented Soft-Land technology. Fully programmable in position, velocity, & force with over 100 million cycle life.



Linear Rotary Actuators
(LAR Series)

Combines linear and rotary motion in a single compact unit. Ideal for pick and place, component feeding, and test and measurement applications.



Electric Cylinders
(CBL Series)

Direct replacement for pneumatic actuators with integrated servo controller option. Available with IP65 rating for harsh environment use.



Electric Grippers

Precise and controllable parallel jaw grippers for automation and assembly. A programmable alternative to conventional pneumatic grippers.



Controllers and Drivers

Single and multi axis controllers to complete the SMAC motion system. Programmable via RS-232 with no supplementary software required.



XY Stages

Compact two axis positioning stages for precision positioning in miniaturised applications. Based on LAL voice coil technology.

**More products available. Contact us for the full range.*



Chuangfeng specialises in precision linear actuators and automation systems for factory automation applications. Offering a wide range of ball screw, belt, and linear motor driven solutions at competitive pricing without compromising on quality.



Ball Screw Actuators

Precision ball screw driven actuators in open, semi-enclosed, and fully enclosed configurations. Suitable for a wide range of industrial automation and positioning applications.



Belt Actuators

High speed belt driven actuators for longer stroke and lighter load applications. Available in built-in, semi-enclosed, fully enclosed, and European style configurations.



Electric Cylinders

Rod type electric cylinders as a clean and precise replacement for pneumatic actuators. Available in standard and built-in configurations for flexible installation.



Linear Motor Robot

High speed and high precision linear motor driven actuators for demanding automation applications. Ideal where conventional ball screw solutions cannot meet speed requirements.



Rack and Pinion Actuator

Heavy duty rack and pinion driven actuators for long travel and high load applications. Suitable for large format automation and gantry systems.



Multi Axis Systems

Ready to install multi axis manipulator systems in belt, screw, and track embedded configurations. Ideal for pick and place and multi axis automation applications.

**More products available. Contact us for the full range.*

SANYO DENKI *Japan*

Sanyo Denki is a leading Japanese manufacturer of cooling systems, servo systems, and power supply equipment. Trusted across semiconductor, industrial automation, and precision engineering applications for their reliability and performance.



SanAce Cooling Fans

DC, AC, and blower cooling fans for thermal management in industrial and electronic equipment. Available in a wide range of sizes, airflow, and IP ratings.



SanMotion AC Servo Systems

High performance AC servo systems in standard and low inertia variants. Suitable for precision motion applications requiring high speed and accurate positioning.



SanMotion DC Servo Systems

DC servo systems with reduced cogging for smooth and precise motion control. Ideal for applications requiring quiet operation and consistent torque output.



SanMotion Stepper Systems

2, 3, and 5 phase stepper motors available in standard, compact, and vacuum rated variants. Suitable for precise positioning in medical, semiconductor, and industrial applications.



SanMotion Motion Controllers

Standalone motion controllers supporting single and multi axis coordination. Compatible with SANMOTION servo and stepper systems for complete motion solutions.



SanUPS

Uninterruptible power supply and power conditioning equipment for critical industrial applications. Protects equipment from power interruptions, surges, and voltage fluctuations.

**More products available. Contact us for the full range.*



MUSCLE *Japan*

Muscle Corporation's Cool Muscle series combines a servo motor, driver, controller, and encoder into a single compact unit. An all-in-one motion solution designed to simplify machine design, reduce wiring, and get systems up and running faster.



CM1
24VDC integrated servo with closed loop vector control, magnetic encoder, and built-in controller. Supports RS-232, RS-485, Modbus, and EtherCAT for flexible connectivity.



CM2
AC powered integrated servo accepting 100-240VAC single or 3 phase input. Higher I/O count than CM1 with dedicated serial ports for more complex applications.



CM3 Series (CM3, CM3M, CM3+)
Next generation Cool Muscle with higher speed, power, and embedded PLC functionality. Available in standard, stepper, and IoT-enabled variants to suit different application needs.

**More products available. Contact us for the full range.*

NPM *Japan*

NPM is a precision motion control specialist supplying high quality motors, drivers, and controllers since 1952. Trusted across semiconductor, medical, analytical instrument, and industrial machinery applications worldwide.



Linear Shaft Motor
Next generation direct drive linear servo motor with zero cogging and zero maintenance. Simple two part design delivering ultra high precision and non-contact operation.



Stepper Motors (MTL Series)
Compact tin can and hybrid stepper motors in two (2), three (3), and five (5) phase configurations. Available in miniature sizes for medical, analytical, and industrial automation applications.



Servo Systems (PULSERVO)
Integrated servo system combining motor, driver, and controller in a compact package. Supports pulse and MotionNet communications for precise motion control.



PFCU Series
Compact integrated stepper motor with driver and controller built in. Ideal for standalone motion applications requiring simple setup and minimal wiring.



EtherCAT Driver
High performance EtherCAT compatible motor driver for synchronised multi axis motion. Suitable for demanding semiconductor and precision automation applications.

**More products available. Contact us for the full range.*

Kingservo by HOFO Automation specialises in compact and cost-effective servo drivers for precise motion control. A practical and affordable alternative for applications requiring reliable servo performance.



Kingservo G3/E3 Series

Compact servo drivers ranging from 100W to 750W with built-in 256-step program editing and dual closed-loop control. Supports EtherCAT at 100us cycle time with friction compensation and error mapping for precise motion control.

Founded in Israel in 1987, Servotronix is a specialist in servo systems and motion control solutions. Trusted by over 1,000 customers across 30 countries, with particular strength in direct drive technology for high-end manufacturing applications.



Motion Controllers

Multi axis motion controllers for precise and synchronised machine control. Suitable for complex automation applications requiring advanced trajectory planning and coordination.



Servo Drives

High performance servo drives compatible with a wide range of servo motors. Supports EtherCAT and other communication protocols for flexible system integration.



Servo Motors

Compact and high torque servo motors designed to pair with Servotronix drives. Available in standard and direct drive variants for a wide range of motion applications.



Integrated Stepper Motors

All-in-one stepper motor with integrated driver and controller in a single compact unit. Simplifies wiring and reduces panel space for straightforward automation applications.



Encoders

High resolution encoders for precise position feedback in servo and motion control systems. Compatible with Servotronix drives and selected third party motion controllers.

Koganei is a leading Japanese manufacturer of pneumatic and factory automation components, combining air and electronics technology to support industrial automation and cleanroom applications since 1943.



Air Cylinders and Grippers

A comprehensive range of air cylinders and pneumatic grippers for factory automation. Available in standard, compact, and guided variants to suit diverse industrial applications.



Air Valves

Solenoid and mechanical valves for precise pneumatic circuit control. Available in single, dual, and manifold configurations for flexible system integration.



Filter Regulators and Fittings

Air preparation units, speed controllers, fittings, and tubing for complete pneumatic systems. Ensures clean and regulated air supply for reliable equipment performance.



Vacuum Equipment

Vacuum pumps, ejectors, pads, and related accessories for pick and place and material handling. Suitable for a wide range of industrial and cleanroom automation applications.



Shock Absorbers

Adjustable and fixed shock absorbers for smooth deceleration and impact control. Ideal for reducing wear and noise in automated machinery and motion systems.



Electric Actuators

Compact electric actuators and slides as a clean and precise alternative to pneumatic systems. Suitable for applications requiring quiet operation and accurate positioning.

**More products available. Contact us for the full range.*

Fuji Latex is a Japanese specialist in motion control and damping solutions. Their products are designed to reduce impact, noise, and vibration across industrial, automation, and consumer equipment applications.



Shock Absorbers

Hydraulic shock absorbers ranging from M4 to M80 outer diameter. Handles a wide range of impact speeds with special specifications available including coolant-resistant and overrun prevention variants.



Plastic Dampers

Linear plastic dampers for soft and controlled opening and closing motion. Reduces collision noise and prevents pinching in furniture, home appliances, and industrial equipment.



Rotary and Vane Dampers

Rotary dampers that apply controlled braking to rotating and swinging motion. Widely used in furniture, automotive interiors, and industrial equipment for smooth and consistent movement.

Miki Pulley is a Japanese specialist in power transmission and motion control components. Known for their broad range of couplings, clutches, brakes, and shaft locking elements used across precision machinery and industrial automation.



Couplings

A wide range of servo, disc, and jaw type couplings for connecting shafts in motors and drives. Available in multiple sizes and configurations for servo, stepper, and general purpose applications.



Magnetic Couplings

Non-contact torque transmission couplings using magnetic force for hermetically sealed applications. Ideal for pumps and equipment requiring complete separation between drive and driven components.



Torque Limiters

Overload protection devices that disconnect input from output when torque exceeds a set limit. Protects machinery and drive components from damage during unexpected load spikes.



ETP Bushings & Posi-lok

Friction-based shaft and hub locking elements for keyless and backlash-free shaft connections. Quick to install and remove without special tools, ideal for frequent adjustment applications.



Electromagnetic Clutches & Brakes

Electrically engaged clutches and brakes for precise start, stop, and holding control. Compact and reliable for automation, office equipment, and industrial machinery applications.



Electric Linear Actuators

Cylindrical linear motor systems with built-in position sensing for immediate thrust generation after startup. Positioning functions built into the driver, no external sensors needed.

**More products available. Contact us for the full range.*

Suco is a German specialist in pressure monitoring and transmission technology. Their products are certified to ATEX, DNV-GL, and IECEx standards, making them suitable for demanding and hazardous environment applications.



Mechanical Pressure Switches

Robust and reliable mechanical pressure switches for monitoring and controlling system pressure. Available in a wide pressure range with ATEX and DNV-GL certification options.



Electronic Pressure Switches

Digital pressure switches with LED display for precise pressure monitoring and switching. Compact design with IO-Link communication for smart factory integration.



Pressure Transmitters

Analogue pressure transmitters for continuous pressure measurement and monitoring. Available in standard and high accuracy variants for industrial and hazardous area applications.

**More products available. Contact us for the full range.*

Yamaha Motor is a leading Japanese manufacturer of industrial robots and automation systems. Known for competitive pricing and a wide product range, from tiny SCARA robots to full multi-axis automation systems for cleanroom and standard factory environments.



Single Axis Robots (Servo)

High rigidity servo driven single axis robots in slider, rod, and belt drive variants. Suitable for high speed, high accuracy pick and place and multi-axis gantry applications.



Single Axis Robots (Stepper)

Compact and affordable stepper driven single axis robots for simple point to point motion. Ideal for lighter load applications requiring basic and reliable linear positioning.



Collaborative Robot

Safe and flexible cobot for human-robot collaboration in assembly and inspection applications. Designed for easy deployment without safety fencing in space-constrained environments.



SCARA Robots

A comprehensive range of SCARA robots from 120mm to 1200mm reach. Available in standard, cleanroom, dust-proof, ceiling-mount, and inverse configurations for diverse automation needs.



Linear Conveyor Module

High speed linear conveyor system for flexible and precise part transfer between process stations. Ideal for assembly line automation requiring independent pallet control and high throughput.



Multi Axis Controllers & Drivers

Dedicated controllers and drivers for coordinating Yamaha single and multi-axis robot systems. Supports vision integration and network communications for complete automation solutions.

**More products available. Contact us for the full range.*

Hyulim Robot is a Korean specialist in industrial robots and automation systems, established in 1999. Their product range covers everything from compact desktop robots to large gantry systems, with particular strength in semiconductor and precision automation applications.



Cartesian Robots

Small, medium, and large Cartesian robots for pick and place, assembly, and handling. Available in multiple configurations for diverse industrial automation applications.



SCARA Robots (DSA Series)

High speed and high precision SCARA robots for assembly, inspection, and pick and place applications. Available in standard and cleanroom configurations.



Wafer Transfer Robots

Vacuum and atmosphere type wafer transfer robots for semiconductor and precision process applications. Designed for reliable and accurate transfer in demanding environments.



Desktop Robots

Compact desktop robots for small footprint automation in assembly and inspection applications. Ideal for tight spaces requiring precise and repeatable motion in a lightweight package.

**More products available. Contact us for the full range.*



Actuators

Compact and rigid linear actuators in straight and parallel configurations. Available in multiple base widths, strokes up to 1000mm, and payload options for diverse applications.



Controllers

Dedicated motion controllers for coordinating single and multi-axis Hyulim robot systems. Supports various communication protocols for flexible automation integration.



FORTREND *United States*

Fortrend is a specialist in ultra-clean semiconductor automation, providing wafer transfer and SMIF solutions for 150mm and 200mm semiconductor manufacturing. Their products are designed for high precision and contamination-free handling in demanding cleanroom environments.



SMIF Arms

Wafer and reticle SMIF interfaces for 150mm and 200mm applications. Available in standard, rotary, and customised configurations to suit various semiconductor process tool requirements.



SMIF Load Ports

150mm and 200mm load ports for seamless integration between wafer carriers and process tools. Designed for reliable and consistent wafer pod opening and closing in cleanroom environments.



Wafer Transfer Robots

Atmospheric and vacuum wafer transfer robots for precise and contamination-free wafer handling. Suitable for EFEM, cluster tool, and process chamber integration in semiconductor fabs.

**More products available. Contact us for the full range.*



Equipment Front End Module (EFEM)

Ultra-clean front end modules with 2 to 3 load port configurations for seamless wafer loading and unloading. Ideal for contamination-free integration with semiconductor process tools.



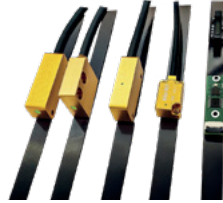
LINEAR MOTOR Singapore | *In-House Brand*

ELM is Elshin's in-house linear motor brand, developed to offer cost-effective and reliable motion solutions for industrial and automation applications. Manufactured through a China OEM partnership, ELM covers linear motors, encoders, and motion accessories at competitive pricing.



Servo Shaft Series

Direct drive tubular linear motors with built-in encoder and RS-422 output. Peak thrust from 4.5N to 420N with repeatability of 4µm. Compatible with most commercial servo drives.



Magnetic Encoders (MSH Series)

Open type magnetic grating displacement sensors with IP67 protection for harsh environments. Bidirectional repeatability of 2µm with seamless measurement up to 50 metres.



M-Spring (Magnetic Spring)

Passive gravity compensation system using magnetic force with zero power consumption. Constant force output from 0.5N to 280N across full stroke for vertical axis applications.



Optical Encoders (Millet Series)

Non-contact reflective photoelectric linear encoders in incremental and absolute variants. Resolution as fine as 0.0125µm with digital and analog output options for diverse motion control systems.



Voice Coil Motors (IVCL Series)

High speed and high acceleration voice coil motors in square and circular configurations. Peak thrust from 6N to 1000N with optional encoder feedback for positioning resolution down to 0.05µm.



Direct Drive Rotary Motors

Miniature direct drive rotary motors with built-in high resolution circular optical encoder. Hollow motor core allows cable routing. Repeatability of 2 arc-seconds and positioning accuracy of 0.01 degrees.

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