PRODUCT DIRECTORY

INDUSTRIE 4.0 Best Partner
**Linear Guideway**

**New Product**

### HG(Heavy Load Ball Type Linear Guideway) Series
HG series linear guideways are designed with circular-arc groove and structure optimization for high load capacity and rigidity better than similar guideway offerings.
- **Size**: 15mm to 65mm  
- **Accuracy**: C to UP
- **Basic Dynamic Load**: 11.38kN - 208.36kN
- **Equal load ratings in radial, reverse radial and lateral directions**
- **Self-alignment to absorb installation-error**
- **Heavy loads, high speed, high accuracy.**

### WE(Four-Row Wide Rail Linear Guideway) Series
The WE series features a wide rail for high loads, moments and rigidity and meets high accuracy standards. The ability to use a single rail with a low profile and low center of gravity is ideal where space is limited or high moments are required.
- **Size**: 15mm to 35mm  
- **Accuracy**: C to UP
- **Basic Dynamic Load**: 5.23kN - 29.8kN
- **Equal load ratings in radial, reverse radial and lateral directions**
- **Self-alignment to limit installation-error**
- **Very low profile, high accuracy**

### RG(High Rigidity Roller Type Linear Guideway) Series
The RG series features cylindrical rolling elements with a 45-degree contact angle. Elastic deformation is reduced for greater rigidity and higher load capacities in all 4 directions. The RG series offers higher performance than ball bearing guideways.
- **Size**: 15mm to 65mm  
- **Accuracy**: H to UP
- **Basic Dynamic Load**: 11.3kN - 275.3kN
- **Very high load capacity**
- **High Precision**
- **Longer running life**

### EG(Low Profile Ball Type Linear Guideway) Series
The EG series offers a low profile, high load capacity, and high rigidity. Lower assembly height and the shorter length make the EG series suitable for high-speed, automation machines and space limited applications.
- **Size**: 15mm to 35mm  
- **Accuracy**: C to UP
- **Basic Dynamic Load**: 5.35kN - 33.35kN
- **Equal load ratings in all 4 directions**
- **Self-alignment to absorb installation-error**
- **High speed, very high accuracy**

### CG(Anti-moment) Series
The new CG linear guideway features an O-Type bearing configuration greatly improving moment load capacity. The series also offers a rail cover strip for enhanced resistance to dust and other contaminants and an improved lubrication path.
- **Superior load ratings**
- **Quick installation**
- **Longer service life**
- **Size**: 15mm to 45mm
- **Accuracy**: C to UP
- **Basic Dynamic Load**: 13.8kN – 124.43

### MG(Miniature Linear Guideway) Series
The MG series is a compact miniature linear guideway with a Gothic arch contact design for high stiffness and high rigidity. The MG series offers anti-corrosion protection with high grade stainless steel on all surfaces. The MG is available in a narrow (MGN) and wide width(MGW) block.
- **Size**: 5mm to 15mm
- **Accuracy**: C to P
- **Basic Dynamic Load**: 0.54kN - 8.93kN
- **Compact design**
- **Stainless steel**

**QH/QE/QW/QR(Quiet Linear Guideway with SynchMotion™ Technology) Series**
The HIWIN QH/QE/QW/QR Series linear guideways have HIWIN’s Patented SynchMotion™ Technology and are interchangeable with the HG/EG/WE/RO series respectively.
- **Superior lubrication**
- **High speed**
- **Quiet operation**
- **Reduced dust generation**
- **Longer running life**
Linear Guideway Accessories

SE(Metallic End Cap Linear Guideway) Type
SE series guideways are a metallic block option that increases temperature resistance and supports high accelerations. This option enables guideway blocks to function at service temperatures up to 150°C and instance temperatures up to 200°C. Steel scrapers and copper bolt caps are available for additional protection. Suitable for vacuum applications.

E2(Self-Lubricant Linear Guideway) Series
The E2 kit is a rail raceway lubricator, installed between the end cap and end seal of a linear guideway block. Equipped with a replaceable/refillable oil cartridge, the E2 is designed to extend distance between maintenance cycles by as much as 10,000km.

Positioning Guideway

HIWIN offers positioning guideway systems with non-contact magnetic encoders for integration with a linear guideway. A magnetic strip is embedded in the rail to prevent contact damage and damage caused by materials such as oil, water and dust. The non-contact sensor prevents wear and increases service life.
- Repeatability: to 2µm
- Resolution: to 1µm
- Maximum Length: 30m
- Max Speed: 10m/sec
- Protection Class: IP67

Positioning Measurement System

Position measurement systems with non-contact magnetic encoders for integration with positioning systems. Analog and digital options supported. Multiple 1 and 3 axis display options with selectable resolutions are available.
- Repeatability: to 1µm
- Resolution: to 1µm
- Maximum Length: 30m
- Max Speed: 10m/sec
- Protection Class: IP67
- Compact design

AC Servo Motor & Drive

HIWIN AC servo motors and drives complement our product offerings for complete linear motion solutions.

AC Servo Motors
- Encoders to 17 bits
- High resolution and positional accuracy
- Low heat generation
- Low noise and vibration
- Motor sizes: 50W to 1KW
- Optional brake

Drives
- Fully digital, vector-controlled drive amplifier
- Auto-tuning function
- Vibration suppression
- Error compensation
- Easily programmable
**Super S Series**
The Super S series features a patented internal recirculation cassette that reduces noise and nut size, and improves performance.
- Low noise: 5-7 dB lower than external recirculation
- Space Saving: 18% - 32% smaller
- Acceleration: 9.8m/sec²
- JIS Accuracy: C0-C7 [ground ballscrew] C6-C10 [rolled ballscrew]
- Exceptional Dm-N Value: to 220,000

**Heavy Load Ballscrew RD Series**
Heavy load ballscrews offer 2-3 times higher load capacity than a standard ballscrew series with a reinforced circulation system suitable for high speed conditions and a longer service life.
- High Static Load: to 496,160kg
- High Acceleration
- JIS Accuracy: C7
- Dm-N Value: to 160,000

**Dust-Proof Ballscrew**
- SS [Scrape wiper]
  Flexible spring-loaded fingers extended from ends eliminate gap between wiper and shaft surface for dust-proof protection.
- SH [Scrape wiper + felt]
  Finger wiper plus high density felt ring for improved dust resistance.
- EW/ NW
  TPU/rubber wiper for standard DIN ball nuts on rolled ballscrews.

**Super T Series**
The Super T series features an external recirculation design that reduces noise and vibration below standard ballscrew designs.
- Low noise: 3-5 dB lower than external recirculation
- Static Load: to 58,851kg
- JIS Accuracy: C0-C7 [ground ballscrew] C6-C10 [rolled ballscrew]
- Dm-N Value: to 160,000

**Rotating Nut Ballscrew R1 Series**
Rotating nut ballscrews integrate a nut and support bearing into a single design allowing a fixed shaft design.
- Low Noise
- High Axial Load: 45° contact angle
- JIS Accuracy: C6-C10 [rolled ballscrew]

**Cool Type I-Extra High Dm-N Value Ballscrew**
Cool type series ballscrews utilize forced fluid cooling to minimize heat generation and thermal expansion. Constant temperature eliminates warm-up time and thermal distortion.
- High Acceleration: to 4.9m/sec²
- JIS Accuracy: C3C7 [ground ballscrew]
- High Dm-N Value: to 200,000

**E2 Self-Lubricant**
Efficient and economical lubrication option.
- Extend maintenance cycle
- Ideal lubrication position
- Easy to install and refill
- Clean and environmental friendly
- Interchangeable oil selection
- Suited for harsh environments: e.g., excess moisture and dust
**Dust-Proof Ballscrew**

**Super S Series**

Chemically improved wear-resistant soft steel ballscrew.

EW/NW dust resistance.

Finger wiper plus high density felt ring for improved elimination of dust.

SS (Scrape wiper) eliminates gap between wiper and shaft surface for SS (Scrape wiper).

**Dm-N Value**

- to 160,000

**High Acceleration**

- 9.8 m/sec²

**High Static Load**

- to 496,160 kg

**JIS Accuracy**

- C0-C7 (ground ballscrew)

**Efficiency and economical lubrication option.**

**E2 Self-Lubricant**

- No maintenance, small size

**Cool Type I-Extra High Dm-N Value Ballscrew**

- Constant temperature eliminates warm-up time and thermal distortion.

**Cool Type Series**

Utilizes forced fluid cooling to minimize heat generation and thermal expansion.

**SK Series**

- Single-Axis Robot - Ballscrew or Belt Driven Stage

- Competitive prices – Save as much as 50%

- Single and multi-axis designs

- Complete motor, drive and accessory solutions

- Off-the-shelf / Assembly ready

- Customizable XYZ configurations

- High precision Industry, semiconductor industry, medical automation industry, FPD panel handling and testing or test environment.

**Multi-Axis Positioning Systems**

- Off-the-shelf / Assembly ready

- Complete motor, drive and accessory solutions

- Single and multi-axis designs

- Customizable XYZ configurations

- Competitive prices – Save as much as 50%

- Prompt delivery – Fully assembled systems in as little a 2-4 weeks
**Precision Bearing**

**Crossed Roller Bearing**
- Able to withstand both axial and radial load
- High Loading Capacity and High Rigidity
- Customized design to meet customer’s specific requirements

**Ballscrew Bearing**
- Great axial rigidity
- Provide flexible assembly tolerances, to meet specific requirements of customers
- Can be supplied with HIWIN ballscrews for a total solution

**Support Unit**
- Anti-rust surface treatment.
- With high precision, high rigidity angular contact ball bearing
- Compact size for easy installation
- Can be assembled with HIWIN Ballscrews for a total solution

**Ball Spline**
- Transmission of torque
  The steel balls traveling on the groove with angular contact offer relative movement between the nut and the screw to achieve torque transmission.
- Integral structure
  The integration of the nut and support bearings allows the Ball Spline to achieve high precision and a compact design.
- Easy installation
  With the optimized retainer design, the nut can easily be removed from the spline shaft and the steel balls will remain secure in the nut.
- Lubricant path
  The optimized lubricant path allows grease to be directly guided to the ball track improving lubrication and increasing service life.

**DATORKER® Robot Reducer**
- Compact and light weight – Easy for user to assemble and work with.
- High accuracy – Provides stable repeatability and positioning.
- High torque – Widely use in automation and inspection equipment.
- Wide range of reduction ratio – Various choices available under same model.
- Customization – Can be customized as per requirements.
- Type / Function:
  - WUT-PO Type
  - WUI-CO Type
  - WTI-PH Type
  - WTI-AH Type
Heavy Load Ballscrew RD Series

Super S Series

TPU/rubber wiper for standard DIN ball nuts on rolled dust resistance.

Finger wiper plus high density felt ring for improved SH (Scrape wiper + felt) dust-proof protection.

Flexible spring-loaded fingers extended from ends SS (Scrape wiper)

Dm-N Value: to 160,000

High Acceleration

High Static Load: to 496,160kg

A suitable high speed transmission system suitable for high speed conditions and a longer than a standard ballscrew series with a reinforced circular

Heavy load ballscrews offer 2-3 times higher load capacity

Exceptional Dm-N Value: to 220,000

C6-C10 (rolled ballscrew)

JIS Accuracy: C0-C7 (ground ballscrew)

Acceleration: 9.8m/sec²

Space Saving: 18% - 32% smaller

Low noise: 5-7 dB lower than external recirculation

The Super S series features a patented internal recirculation

Suited for harsh environments: e.g., excess moisture and dust

Interchangeable oil selection

Clean and environmental friendly

Easy to install and refill

Extend maintenance cycle

Efficient and economical lubrication option.

E2 Self-Lubricant

temperature eliminates warm-up time and thermal distortion.

minimize heat generation and thermal expansion. Constant

Cool type series ballscrews utilize forced fluid cooling to

Cool Type I-Extra High Dm-N Value Ballscrew

into a single design allowing a fixed shaft design.

Dm-N Value: to 160,000

C6-C10 (rolled ballscrew)

JIS Accuracy: C0-C7 (ground ballscrew)

Static Load: to 58,851kg

Low noise: 3-5 dB lower than external recirculation that reduces noise and vibration below standard ballscrew

The Super T series features an external recirculation design

Single-Axis Robot - Ballscrew or Belt Driven Stage

- Prompt delivery – Fully assembled systems in as little a 2-4 weeks
- Competitive prices – Save as much as 50%
- Single and multi-axis designs
- Complete motor, drive and accessory solutions

Multi-Axis Positioning Systems

- Linear Motor

Ironcore Motors
- High thrust
- High acceleration and deceleration
- Point-to-point motion applications

Ironless Motors
- No cogging force
- Lower velocity ripple
- Scan motion applications

Shaft Motors
- Circle stator
- No cogging force
- Smooth motion profile application

Planar Motors
- Air bearing for wear-free operation
- Integrated position sensor, closed-loop control
- No temperature rise issue, can be installed upside down

Products
LMSA Series, LMFA Series, LMSC Series, LMC Series, LMT Series, LMSP Series

Complete Motion Systems

Features:
- Customized design
- Deviation in synchronization movement < 5μm
- Complete system can have up to 18 axes
- Best positioning feedback system resolution 50nm
- Max. velocity 5m/s
- Max. acceleration 3.5G

Applications:
- Automation pick and place
- Solar energy equipment
- FPD/PCB/AOI equipment
- Water jet
- Machine tool
- Laser scanning and cutting equipment
Articulated Robot - RA/RT Series
• A compact and agile 6-axis jointed-arm robot for precise assembly, part transfer and workpiece loading/unloading.
• Applications include: pick-and-place, handling, assembly, deburring, grinding and polishing.

Delta Robot - RD Series
• A 4-axis parallel robot utilizing a parallel linkage mechanism to perform extremely high speed motions with stability and high accuracy.
• Applications include: pick-and-place, assembly, alignment and packaging.

Electric Gripper - X Series
• Full range of products are integrated with stepper motor and encoder, have the feature of statuses return signal, abnormal alarm, object identification and other signal output.
• Use the miniature both-hand linear modules, to achieve high-speed, high precision, high rigidity, high efficiency and with small size advantages.
• System inbuilt with the auto-tuning original reset and the gripping model establishment, which have real-time adaptive capture, model adjustment and other intelligent functions.
• Move direction, travel, force, speed, etc. can be set, and the software has the function of recording operating history.

Electric Rotary Joint-ERJ Series
• Designed and developed to prevent the wires from twisting during continuous rotational motion, thus eliminating the chances of wire interference and wear.
• The end of robot arm can be opened for infinite rotational motion.
• Significantly speed up the assembly, grinding, polishing, deburring.

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