

## Linear guides for automation and heavy duty applications

**C**RD Devices now offers a number of different linear guides to meet the needs of different applications. Products include the Hiwin EG series of low profile ball type linear guides for automation applications, and the new Hiwin RG series of roller type guideways for heavy and super-heavy loads demanding the highest levels of rigidity.

These two ranges of linear guides are available in standard lengths from 100mm to 4000mm, and rails can be combined to provide travel lengths of several kilometres where required. The linear guides are provided in several accuracy classes, from high precision right up to ultra precision that guarantees tight dimensional tolerance and the greatest accuracy of running parallelism.

The design of the EG series offers a low profile of 24-48mm, high load capacity (up to 33kN dynamic load, 64kN static load), and high rigidity. It also features an equal load rating in all four directions and self-aligning capability to absorb installation-error, allowing for higher accuracies. Additionally, the lower assembly height and the shorter length make the EG series more suitable for high-speed, automation machines and applications where space is limited.

Applications for the EG series include automation devices, high-speed transportation equipment, precision measuring equipment, semiconductor manufacturing equipment and woodworking machinery.



For the heaviest loads and increased operating life, the new RG series features a roller as the rolling element instead of steel balls. The roller series offers super high rigidity and very high load capacities – up to 275kN dynamic, 572kN static. The RG series is designed with a 45-degree angle of contact. Elastic deformation of the linear contact surface, during load, is greatly reduced thereby offering greater rigidity and higher load capacities in all four load directions. Further, the unique design of the circulation path allows the RG series linear guideway to offer smoother linear motion.

RG series linear guideways are classified into non-interchangeable and interchangeable types – interchangeable types of blocks and rails can be freely exchanged and still maintain p-class accuracy. Because of this strict dimensional control, the interchangeable type linear guideways are ideal when rails do not need to be matched for an axis. Applications for the RG series include CNC machining centres, heavy duty cutting machines, CNC grinding machines, injection moulding machines, plano millers and electric discharge machines.

CRD Devices also have the largest range of Hiwin linear actuators from stock. As well as actuators CRD Devices supply screw jacks, ball screws, linear motors, linear bearings, solenoids and electromagnets.

[www.crd-devices.co.uk](http://www.crd-devices.co.uk)

## New spherical roller bearings

**T**he wide range of versatile and reliable spherical roller bearings (SRBs) from NSK has been further expanded. The development of two additional series of SRBs that cater for either speed or load as a priority, the latest 222 and 223 SRB ranges are designed to meet the needs of the most demanding environments and are included in a new NSK guide designed to make the choice between these sometimes conflicting demands easier.

SRBs offer an unequalled combination of high load capacity, high tolerance to shock loads and self-aligning ability, however, these attributes are tempered by the limitation of maximum speed. The capacity to maintain dimensional stability, support high radial loads and moderate axial loads also makes the SRB an ideal product in heavy applications.

As one of the world's leading manufacturers of rolling bearings, NSK has developed some of the leading technology in bearing design. While many applications may require super high precision or zero maintenance designs, there remains a large market for the more general purpose, heavy duty design of SRB, this is further addressed by the 222 and 223 series, now available from NSK Europe.

[www.nsk-europe.com](http://www.nsk-europe.com)



## Reduced maintenance and less lubricant

**S**KF has extended its range of sealed spherical roller bearings, significantly increasing the number of applications where they can be used. Due to their sealed construction, the bearings can reduce maintenance, while offering consistently high performance under demanding conditions. In most cases, the sealed variant is dimensionally interchangeable with open bearings enabling applications to be upgraded simply and cost effectively.

During installation, maintenance and operation, open bearings can be exposed to contaminants, which can significantly reduce bearing service life. With sealed SKF spherical roller bearings a high degree of cleanliness is maintained inside the bearing, to significantly increase bearing service life. In contaminated environments, sealed bearings can last up to four times as long as open



spherical roller bearings. Under certain operating conditions, sealed SKF Explorer spherical roller bearings can be considered relubrication-free. As the bearings do

not require external seals in all but the most aggressive environments, installation is simplified, further reducing downtime and maintenance costs. Additionally, the seals virtually eliminate the risk of lubricant leakage often associated with conventional open bearings and external seals, minimizing their environmental impact.

Sealed SKF Explorer spherical roller bearings feature acrylonitrile-butadiene double lip seals and high quality SKF grease. A high temperature variant with hydrogenated acrylonitrile-butadiene rubber seals and high temperature SKF grease is also available.

As is the case with all SKF Explorer spherical roller bearings, the sealed variant has a number of features that make them excellent for use in demanding applications.

[www.skf.co.uk](http://www.skf.co.uk)