



IKO
BEARINGS

THE WORLD IN MOTION



IKO brand products by Nippon Thompson Co. Ltd., which continue to win praise across a wide variety of industries, are developed and manufactured by people constantly pursuing Innovation, developing highly technological Know-how, and striving to turn out products overflowing with Originality. These words — Innovation, Know-how, and Originality — capture our company creed and are the inspiration for our brand name, IKO.

Nippon Thompson Co. Ltd. developed needle roller bearings first time in Japan using its own technology, and used that advanced technology as a foundation for entering into the field of linear motion rolling guides (Linear Way Series and Mechatronics Series). Currently, we are supporting the development of technology with the first-of-its-kind C-Lube Maintenance Free Series and a rich array of other creative products that respond to diversifying customer needs.



NEEDLE ROLLER BEARINGS

Needle Roller Bearings are the essential elements of machines and equipment in a broad range of industries.



LINEAR MOTION ROLLING GUIDES

A broad line-up of Linear Motion rolling guides, from the extremely small to the very large in size. C-Lube helps to protect the global environment.



PRECISION POSITIONING TABLES

Integrated precision manufacturing technologies and electronics

(Please enquire separately – not included in this brochure)

IKO Contributes to Preserving The Global Environment

Nippon Thompson Co., Ltd. is working to develop global environment-friendly products. It is committed to developing products that make its customers' machinery and equipment more reliable, thereby contributing to preserving the global environment.

This development stance manifests well in the keyword "**Oil Minimum.**"



Our Pursuit of Oil Minimum has Led to The Creation of IKO's Proprietary Family of Lubricating Parts as "C-Lube."

The C-Lube Series not only keeps products maintenance-free for long by giving them an optimal and minimal amount of a lubricant for an extended period of time but also contributes greatly to preserving the global environment.

Environmentally Conscious "Interchangeable" Concept Removes Material and Stock Inefficiencies Completely.

"Interchangeable" is a generic term covering user-centric product selection systems that allow slide units and track rails to be freely reorganized and interchanged while maintaining their accuracies and preloads completely.

The Merger of The Benefits of Being Maintenance-Free

Thanks to the Built-in C-Lube with an Advanced Interchangeable System is "**Free & Interchangeable.**"

NEEDLE ROLLER BEARING

Needle roller bearings are rotational motion bearings in which a thin needle-shaped roller is incorporated into a rolling element. They have a low cross-section height and high load capacity compared with ball bearings. Being small, needle roller bearings contribute to reducing overall machine size, and are thus widely used in various applications.



RADIAL TYPE



Shell Type Needle Roller Bearings

- o The Caged Type has a structure in which the needle rollers are accurately guided by the cage and thrust rings. Used in applications with high-speed rotation.

- o Full Complement Type is suitable for heavy-load applications with low-speed rotation.



Needle Roller Cages for Engine Connecting Rods

- o Needle Roller Cages for Big End
- o Needle Roller Cages for Small End
- o These bearings have superior performance proven in high performance engines of racing

motor cycles, and are widely used in small motor vehicles, motor cycles, outboard marines, snow mobiles, high-speed compressors, etc. and also in general-purpose engines. Bearings for engine connecting rods are used under extremely severe and complex operation conditions.



Needle Roller Cages for General Use

- o High carbon steel cage type
- o Synthetic resin cage type
- o When combined with shafts and housing bores that are heat treated and accurately ground as raceway surfaces, Needle

Roller Cages for General Usage are particularly useful in small spaces.



Machined Type Needle Roller Bearings

- o Caged Needle Roller Bearings
- o Guide Needle Roller Bearings
- o Capilube Needle Roller Bearings
- o These bearings are available in metric series and inch series, both of which have the caged type

and the full complement type. It is therefore possible to select a suitable bearing for use under various conditions such as heavy loads and high-speed or low-speed rotations. In addition, there are bearings with and without an inner ring. As the type without inner ring uses a shaft as the raceway surface, a compact design is possible.

THRUST BEARINGS

NTB AZK AZ WS GS AS

Thrust needle roller bearings consist of precisely made cages and rollers. They have high rigidity and high load capacity and can be used in small spaces. Various types of raceway rings are available, and can be selected according to the operating conditions. They are best suited for applications where high accuracy is required at high speeds and under fluctuating heavy loads.



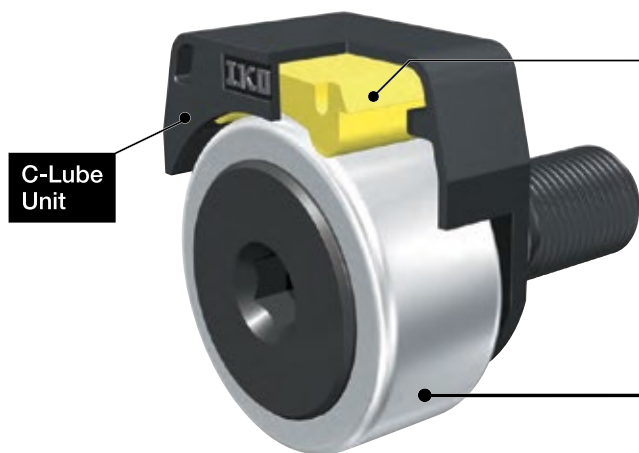
THRUST NEEDLE ROLLER BEARINGS

Consist of a cage made from a steel plate, which is precisely press formed and surface-hardened, and needle rollers with a diameter variation with 2µm. They have a rigid structure and a high lubricant-retaining capacity. As they have the lowest sectional height compared with other thrust bearings, they can be used instead of conventional thrust washers and can withstand high-speed rotations with a low coefficient of friction.



THRUST ROLLER BEARINGS

In this series, the caged cylindrical rollers AZK and the complete bearings AZ in which AZK are combined with an inner ring (WS) and an outer ring (GS) are available. The cage has a special precise structure which is highly rigid. The cylindrical rollers are outwardly arranged and guided by the cage with exact precision to enable them to withstand heavy loads, even at high rotation speeds.

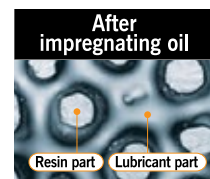


Capillary lubricating element

Constructed by sintering a fine resin powder into a porous mold. The porous mold is then saturated with a large amount of lubrication oil.



Resin particles are firmly fused together with numerous empty spaces.



Lubricant is retained in cavities amongst resin particles.



CAM FOLLOWERS

CF NUCF CFS CR

Cam Followers are bearings incorporating needle rollers with a stud enclosed in a thick outer ring. These bearings are designed for outer ring rotation with superior rotational performance, a low coefficient of friction and high load capacity. It has a high rigidity and accuracy making them well suited for various applications such as cam mechanisms and guide rollers for linear motion

CAM FOLLOWERS TYPE



Standard Type Cam Followers CF

- o Line up of size variations range from stud diameters of minimum 3 mm to maximum 30 mm



Solid Eccentric Stud Type CFES

- o Designed with eccentricity, by rotating the stud, alignment is possible - eccentricity is 0.25 mm - 0.6 mm.



Eccentric Type Cam Follower CFE

- o Since eccentric collar is fixed to the stud, positioning in the radial direction against the opposing track surface can be conducted easily.
- o The amount of eccentricity is 0.4 mm, 1.5 mm.



Thrust Disc Type Cam Follower CF-W

- o With a special synthetic resin thrust washer built, it will receive axial load of the outer ring generated by attachment errors, etc., and it has the effect of preventing wear and friction of the sliding surface.



Cam Followers for Centralised Piping CF-RU1, CF-FU1

- o Since tap hole processing is conducted on the stud for centralized piping, it is most suitable for places where centralized piping of oil supply is necessary.
- o Easy Mounting Type CF-SFU - Since stepped processing is conducted on the stud, the stepped portion is fixed in place from the top with a setting screw, and attachment is easy. It is suitable for applications such as pallet changer.



C-Lube Cam Followers CF-/SG

- o This is a cam follower in which thermo-hardening type solid lubricant (C-Lube) is filled in the bearing space. C-Lube is a lubricant made by solidifying lots of lubrication oil and fine particles of high molecular polyolefin resins by thermal treatment, and suitable amount of this lubricant will seep out continuously to the track surface by the rotation of the bearings, and the lubricating performance of the bearings is maintained for a long period of time.



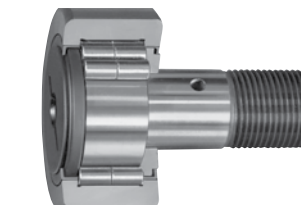
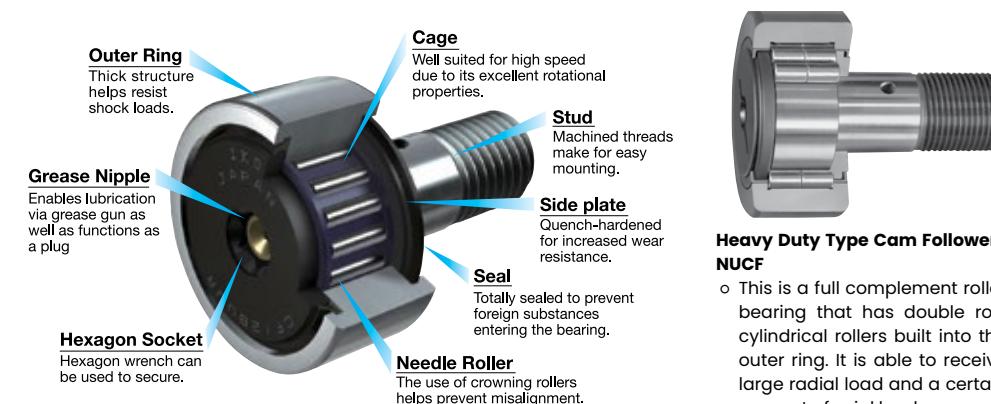
Miniature Cam Followers CFS

- o This is a bearing that has extremely fine needle-type rollers built into the outer ring, and it is designed compactly so that the outside diameter of the outer ring is small in comparison with the stud diameter. It is used in electronics parts machinery, OA (Office Automation) equipment, and small index devices.



Miniature Cam Followers with Thrust Washer

- o This is a miniature cam follower to which a thrust washer made of special synthetic resin is built into. It receives the axial load of the outer ring generated by the attachment errors. It is effective in preventing wear and friction of the sliding surface.



Heavy Duty Type Cam Followers NUCF

- o This is a full complement roller bearing that has double row cylindrical rollers built into the outer ring. It is able to receive large radial load and a certain amount of axial load.



C-Lube Unit for Cam Followers CL

- o New Concept! Track Surface is also made Maintenance-Free!!

COMBINED TYPE

NAX NBX NATA NATB

**Combined Type Needle Roller Bearings**

- Combined with Thrust Ball Bearings
- Combined with Thrust Roller Bearings
- Combined with Angular Contact Ball Bearings
- Combined with 3-point Contact Ball Bearings

SPHERICAL BUSHINGS

SB GE SBB

- Steel-on-steel Spherical Bushings have inner and outer rings of high carbon chromium bearing steel, of which sliding surfaces are phosphate-treated and then dry-coated with molybdenum disulfide (MoS₂). They have wide applications in industrial and construction machinery.

- Maintenance-free Spherical Bushings consist of an outer ring which has a special PTFE liner reinforced with copper alloy meshes on the sliding surface, and a spherical inner ring of which sliding surface has a hard chromium plating. Creep deformation due to compressive load is small, and wear resistance is superior.



ROLLER FOLLOWERS

NAST NART NURT CRY

**C-lube Roller Followers NART--/SG**

- These Roller Followers are lubricated with a thermosetting solid-type lubricant (C-Lube) which fills the inner space of the bearing.
- C-Lube is lubricant made of a lot of lubrication oil and fine particles of high molecular polyolefin that are solidified by heat treatment, which oozes out onto the raceway in proper quantities.

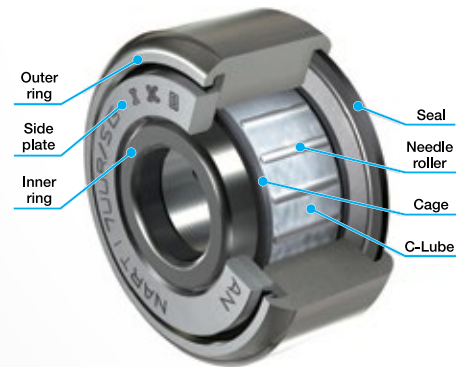
**Roller Followers**

- Separable Roller Followers
- Non-separable Roller Followers (High carbon steel, stainless steel)
- Heavy Duty Type Roller Followers
- Both crowned and cylindrical outer rings are available.
- Two types available - the caged type and the full complement type.
- They are widely used for cam mechanisms and for linear motions of conveying equipment.

C-Lube Roller Followers are Roller Followers with needle rollers incorporated in thick outer rings, designed for rotation of the outer ring. They are a maintenance free product with bearing inner space filled with C-Lube, an IKO original thermosetting solid-type lubricant.

Features:

1. Reduced use of lubrication oil. Because regular lubrication is no longer required, the amount of lubrication oil used can be reduced. This allows the reduction of oiling work as well.
2. Ideal for applications where oil is undesirable. Because the lubrication oil is retained within the bearing inner space, there is no oil leakage and no contamination of the surroundings with oil splashes.
3. Reduced lubrication equipment cost. Because lubrication equipment is no longer required, equipment design and maintenance costs do not arise. As well, the space formerly occupied by lubrication equipment can be put to effective use.



PILLOBALLS & L-BALLS

PB PHS POS PHSA PHSB POSB



- Lubrication Type PILLOBALL Spherical Bushings Insert Type
- Lubrication Type Rod Ends Insert Type
- Lubrication Type Rod Ends Die-cast Type
- Maintenance-free Type Rod Ends
- PILLOBALLs are compact self-aligning spherical bushings that can support a large radial load and a bi-directional axial load at the same time.
- PILLOBALL Rod Ends have either a female thread in the body or a male thread on the body, and they can be easily assembled onto machines.
- PILLOBALLs are used in control and link mechanisms in machine tools, textile machines, packaging machines, etc. The maintenance-free type is especially suitable for machines where oil must be avoided such as food processing machine.

CROSSED ROLLER BEARINGS

CRB CRBS CRBT CRBF CRBH CRBC

**Standard Type Crossed Roller Bearings CRBC / CRB**

- The outer ring is made of two split pieces, which are bolted together to prevent separation during transportation or mounting, enabling easy handling. These bearings are widely used in the rotating parts of industrial robots, machine tools, medical equipment, etc., which require compactness, high rigidity and high rotational accuracy.

**Slim & Super Slim Type Crossed Roller Bearings CRBT / CRBS**

- CRBT are extremely compact bearings having cylindrical rollers disposed perpendicularly between inner and outer rings.
- By using cylindrical rollers whose elastic displacement due to load is smaller than steel balls, CRBS crossed roller bearing can make the device compact and highly rigid comparing to ball bearings or taper roller bearings and the combination of two ball bearings.

**Mounting Hole Type High Rigidity Crossed Roller Bearings CRBF**

- Both the inner ring and the outer ring have integrated structure (Inseparable), and attachment holes are made to the inner ring and outer ring so attachment can be made easily.

**High Rigidity Type Crossed Roller Bearings CRBH**

- Both inner and outer rings have a solid one-piece construction. Therefore, high accuracy and high rigidity are achieved, and mounting errors can be minimized. As separators are incorporated between the cylindrical rollers for smooth rotation, these bearings are suitable for applications where rotational speed is comparatively high.

ROLLER BEARINGS

NAG NAU TRU NAS

Caged Roller Bearings

- Caged roller bearings are designed for high-speed rotations and variable loads. As there is large axial distance between double rollers, large moment loads are supported.
- Optional synthetic rubber seals prevent dust penetration and grease leakage.

**Full Complement Roller Bearings**

- Full complement roller bearings are suitable for low-speed rotations, oscillating motions and heavy loads.
- Supports moment loads with a design similar to the caged style.
- Optional seals are available on both sides.

**Roller Bearings for Sheaves**

- These bearings are double-row, full complement with a low cross sectional height designed for use in sheaves. There are two types, sealed and shield type. They can withstand heavy radial loads and shock loads at comparatively low-speed rotations, and can also withstand axial loads. It is easy to fix them axially to sheaves using the stop rings of the outer ring. The width of the inner ring is designed to be larger than that of the outer ring, so they require no spacer between sheaves. The structure is stable because the double-row of rollers can withstand the moment loads caused by rope transition. The surfaces of these bearings are also treated to provide high corrosion resistance.



LINEAR MOTION ROLLING GUIDES

The Linear Motion Rolling Guide Series is a range of machine parts that are indispensable for reducing linear motion friction in the positioning mechanisms of machinery. We supply a large range of products including the linear way and linear roller way rail guiding systems, and a ball spline-based shaft guiding system. Available sizes range from the world's smallest track rail at just 1 mm wide, to a very large version which provides high rigidity and high-load capacity. The Linear Motion Rolling Guide Series is widely used in various fields ranging from the most advanced semiconductor manufacturing devices to large machine tools or construction equipment.



BALL TYPE LINEAR MOTION ROLLING GUIDES



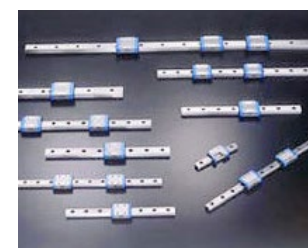
Linear Way LWL/LWLF

- A miniature type linear motion rolling guide, incorporating two rows of steel balls arranged in four point contact with the raceways. Although it is small in size, it provides stable accuracy and rigidity owing to its simple design even in operations under fluctuating loads with changing direction and magnitude or complex loads.



Linear Way E LWE

- A linear motion rolling guide, featuring a compact slide unit which performs endless linear motion along a track rail. Two rows of steel balls are arranged in four point contact with the raceways. This design ensures stable high accuracy and rigidity in operations even under fluctuating loads with changing direction and magnitude or complex loads.



C-lube Linear Way ML/MLF

- Lightweight and compact linear way incorporating built-in lubricating parts, C-Lubes, in Linear Way ML of miniature series. Long term maintenance free can be achieved.



C-lube Linear Way MLV

- Small-size linear motion rolling guide utilizing simple four-points contact in two-row raceways structure. Long term maintenance free is achieved by using the built-in lubrication part.



C-lube Linear Way MV

- Has the maximum downward load rating among the ball types while achieving high load capacity, despite its extra low profile and light weight. It realizes long term maintenance free as the slide unit has a built-in lubrication part C-Lube.



C-lube Linear Way ME

- Compact type linear motion rolling guide incorporating built-in lubricating parts, C-Lubes, in Linear Way ME. Long term maintenance free can be achieved.



C-lube Linear Way MH

- High rigidity type linear motion rolling guide incorporating built-in lubricating parts, C-Lubes, in Linear Way MH. Long term maintenance free can be achieved.



C-lube Linear Way MUL

- Linear motion rolling guide adopting U-shaped track rail and incorporating built-in lubricating parts, C-Lubes, in Linear Way MUL. Long term maintenance free can be achieved.



Low Decibel Linear Way LWE-Q

- Its low noise characteristic has been achieved by adopting optimum design based on a thorough analysis of ball recirculation behavior and sound quality. Due to a resin separator, direct contact is eliminated and smooth and quiet motion is achieved.



Linear Way F LWFH/LWFF/LWFS

- A linear motion rolling guide, featuring a wide track rail along which a highly rigid slide unit performs endless linear motion. A large number of large diameter steel balls are incorporated in two rows and in four point contact with the raceways, so stable high accuracy and rigidity can be obtained in operations.



Linear Way H LWH

- Incorporates two rows of large diameter steel balls in four point contact with the raceways and provides stable high accuracy and rigidity in operations even under fluctuating loads with changing direction and magnitude or complex loads.



Linear Way U LWU/LWUL

- A linear motion rolling guide featuring a track rail with a U-shaped cross section. Raceways are provided on the inside surface of the track rail, and a slide unit mounted inside the track rail travels along the raceways. The U-shaped track rail has much higher rigidity as compared with the track rail.

ROLLER TYPE LINEAR MOTION ROLLING GUIDES



C-lube Linear Roller Way Super MX

- High performance roller type linear motion rolling guide, featuring high reliability, high rigidity, high accuracy and smooth motion which are required from machine tools, semiconductor manufacturing and liquid crystal manufacturing equipment.



Linear Roller Way Super X LRX

- High performance roller type linear motion rolling guide, featuring high reliability, high rigidity, high accuracy, and smooth motion.
- Four rows of cylindrical rollers are incorporated in a highly rigid casing with good

balance, and the cylindrical rollers in each row are arranged in parallel to each other.



Anti-Creep Cage Crossed Roller Way CRWG

- The product with a cage creep proof function using a rack and pinion mechanism originated from Crossed Roller Way, featuring smooth linear motion with super high accuracy.



Crossed Roller Way CRW

- A linear motion rolling guide in which a roller cage is incorporated between two ways with V-shaped raceways. Can receive loads in any direction and can achieve very smooth linear motion with very high accuracy.



Anti-Creep Cage Crossed Roller Way Unit CRWUG

- The products with a cage creep proof function using a rack and pinion mechanism originated from IKO Crossed Roller Way, featuring smooth linear motion with super high accuracy.



Crossed Roller Way Unit CRWUG

- A linear motion rolling guide unit for limited stroke linear motion, incorporating IKO Crossed Roller Way CRW in a table and bed of high rigidity which are finished by grinding.



High Rigidity Precision Linear Slide Unit BWU

- A compact linear motion rolling guide for limited stroke length. The unit incorporates two rows of steel balls in four point contact with the raceways so that stable accuracy and high rigidity are obtained even under

fluctuating and complex loads. Wide variations in size are available for selections suitable for each application.



Precision Linear Slide Unit BSP/BSR

- A light weight and compact linear motion rolling guide, comprising a U-shaped table and bed made from stainless steel sheet by precision forming. The raceway grooves are accurately ground on the table and bed.

Suitable for measuring equipment, disk drives, IC manufacturing and inspection devices, etc.



Linear Bushing G LMG

- Linear Bushing G is a high load capacity type linear motion rolling guide which achieves endless linear motion of an external cylinder along a shaft with grooved raceways. It is a very simple and compact linear bushing with a large load capacity.



Linear Bushing LM

- Linear Bushing LM is a high precision linear motion rolling guide which travels along a shaft to achieve endless linear motion. In the external cylinder, a retainer, steel balls, etc. are compactly incorporated.



Miniature Linear Bushing LMS

- Miniature Linear Bushing is a miniature type linear motion rolling guide which travels along a shaft to achieve endless linear motion.



Miniature Stroke Rotary Bushing STSI

- A very compact linear motion rolling guide with small diameter and low sectional height. It is able to achieve both rotary and linear motion at the same time.

BALL SPLINE



C-Lube Ball Spline MAG

- A compact linear motion rolling guide which achieves endless linear motion of an external cylinder along a spline shaft. With IKO original C-Lube technology, its performance makes the products different from others, providing superior cost performance and maintenance free for 20,000 km or 5 years minimizing the amount of lubricant required for your machines.



Linear Ball Spline G LSG

- A linear motion rolling guide which achieves endless linear motion of an external cylinder along a spline shaft. Two rows of steel balls are arranged in four point contact with the raceways. Stable high accuracy and rigidity are ensured in operations even under fluctuating loads with changing direction and magnitude or complex loads. Owing to its simple design, this product is very compact.



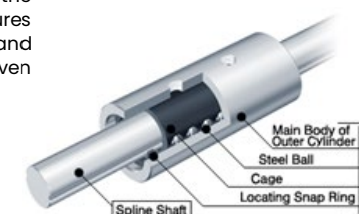
Block Type Linear Ball Spline LSB

- A linear motion rolling guide, featuring a slide unit which performs endless linear motion along a spline shaft. Two rows of steel balls are arranged in four point contact with the raceways. This design ensures stable high accuracy and rigidity in operations even under fluctuating loads.

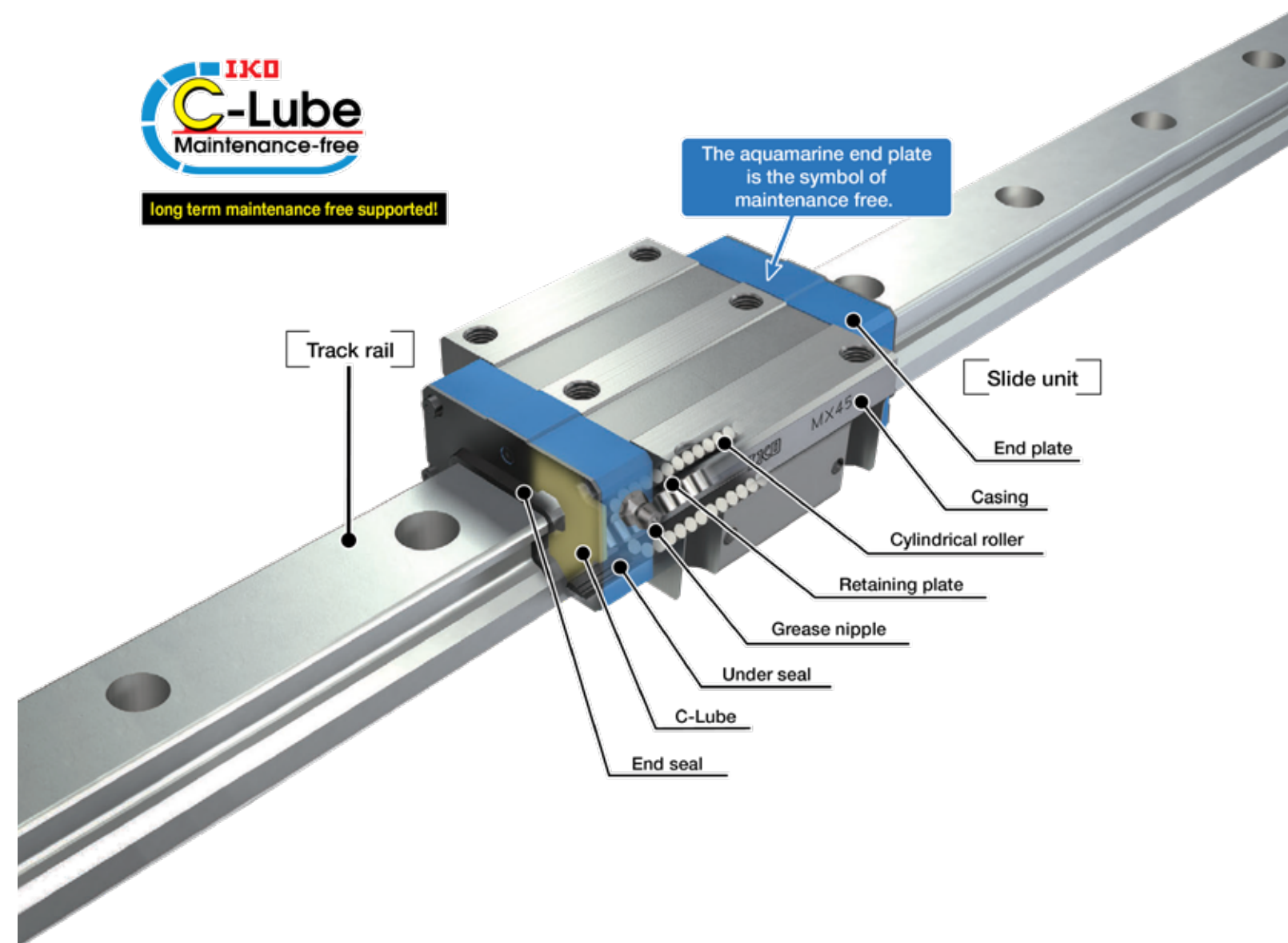


Stroke Ball Spline LS

- The advent of Compact Ball Spline that realizes extremely smooth straight line movement.



long term maintenance free supported!



Light weight, low profile and high-precision positioning table!



PRECISION POSITIONING TABLE

MECHATRONICS



The Precision Positioning Table Series has been created through a combination of precision machining technology and electronics. The result is a precision positioning table which consists of a direct-acting series, along with a ball screw or motor, incorporated between a bed and a slide table. The series ranges widely, from a module type table to a high-precision version. The Precision Positioning Table Series is used as the positioning mechanism for a variety of applications, from semiconductor manufacturing equipment or flat panel display manufacturing equipment, to precision equipment. Using this positioning table or electrical equipment for your control needs contributes to an overall reduction in the man-hours required for design and assembly.

IKO IN APPLICATIONS



Reliable Linear Motion for Packaging Machines

In the productivity-driven packaging industry, there are many possible sources of downtime. You can eliminate many of them by selecting failure-resistant linear motion components. These robust guides and positioning tables have design features that prevent premature failure due to poor lubrication practices or contamination. At the same time, these components still have to meet the necessary accuracy, precision & load requirements.

Here's a quick overview of three features you should look for when trying to maximize the life cycle of linear guides and positioning tables in demanding packaging applications:

MECHATRONICS SERIES LINE UP



Precision Positioning Table TU



Precision Positioning Table TE



High Rigidity Positioning Table LH



Super Precision Positioning Table TX



High Rigidity Positioning Table LH



Super Precision Positioning Table TX

LINEAR MOTION DRIVES ... examples



Nano Linear NT-V



Nano Linear NT-XZH



Linear Motor Table LT



Alignment Stage SA

TIMING BELT DRIVE TYPE



Precision Positioning Table LB

PROGRAMMABLE CONTROLLER



Programmable Controller CTN

SELF-LUBRICATION FOR A MAINTENANCE-FREE LIFE

Despite the best of intentions, inconsistent, inadequate lubrication happens. And it's one of the main causes of premature linear guide failure, which can bring packaging lines to a dead stop.

What's more, the use of lubricants can be problematic in packaging applications, particularly in machines that come in direct contact with the packaged products.

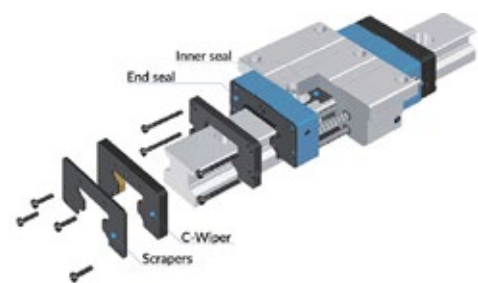
So it's especially important to consider linear motion products that offer some sort of internal lubrication mechanism.



The C-Lube lubrication technology meets the twin goals of (1) the longest possible maintenance-free intervals; and (2) a compact design that adds as little as possible to the size of the bearing's mechanical package. Offering maintenance intervals of 20,000 km of operation, C-Lube integrates oil-impregnated lubricating elements entirely within the slider housing. The lubricating elements, which are made from a sintered resin, have an open porous structure that can be impregnated with large amounts of oil.

The elements release the impregnated oil slowly through direct, continual contact with the linear guide's internal rolling elements, ensuring adequate lubrication at all times.

FOCUS ON CONTAMINATION REDUCTION



Packaging applications are highly sensitive to contamination. In large part, that sensitivity has to do with integrity of the packaged product, but it also has implications for productivity. With their fast line speeds, packaging lines can be brought to a halt if contaminants make their way into linear guides and contaminants of various kinds—such as cardboard particles—are all too common in packaging plants.

To keep contaminants at bay, you may sometimes need linear guides with sealing capabilities. Our C-Wiper offers the ultimate in protection against foreign matter and is available on many guides suitable for packaging applications. C-Wiper is a unique innovation, consisting of an oil impregnated rubber wiper that seals-off the complete surface of the track rail, providing an excellent dust-proof protection against fine foreign matter. In addition, it incorporates scrapers and durable elastomer seals on the ends and undersides of the slider.

Self-lubricating technologies also play an important role in preventing contamination—the less lubricant that needs to be applied to keep linear axes running smoothly, the less chance stray oil will make its way onto products or packages.

CLEARANCE-TYPE BEARINGS CAN HELP

Preloading linear bearings is common in applications that require maximum accuracy, precision and stiffness from every linear motion axis. Packaging machines, however, often have requirements that are easily met by clearance-type guides and motion stages.

With some clearance between the rail and rolling elements, guides will need less linear forces to move the slider at a given speed, which is a nice benefit when it comes to fast-moving packaging machines. The accuracy and precision trade-off will be negligible in most packaging applications. Many of our linear guides run with a pre-load for use in high-precision applications, but we do offer clearance-type linear motion devices.

Selecting linear bearings that self-lubricate, fight contamination and offer some clearance won't solve all your downtime problems. But they will solve some of them by keeping your linear motion axes running smoothly for the long haul.



OTHER APPLICATIONS

AUTOMATION



Reliable linear guides and positioning tables for fast, precise movement

Thanks to our C-lube self-lubrication technology, our positioning tables and linear guides operate maintenance-free in automation applications. Our positioning table offerings also include high-load versions based on linear rollers.

Technical Features

- Stainless steel and carbon steel
- C-lube self-lube technology
- Maintenance-free
- Many sizes available for a wide range of applications
- High accuracy and repeatability

Application Examples

- Automobile manufacturing equipment
- Electrical appliances
- Aerospace industry
- Medical imaging and equipment

MEDICAL



Reliable linear guides and positioning tables for fast, precise movement

Thanks to our C-lube self-lubrication technology, our positioning tables and linear guides operate maintenance-free in automation applications. Our positioning table offerings also include high-load versions based on linear rollers.

Technical Features

- Stainless steel
- Small general size
- C-lube self-lube technology
- Clean room-compatible

Application Examples

- Blood testing, Lab automation, Detection instruments, Rodless cylinders, Imaging readers, Lab diagnostics, Medical imaging, Surgical robots

MACHINE TOOLS



Robust Linear Guides for High Load Capacities

Our heavy-duty ball and roller bearings can withstand the high loads and contamination that characterize many machining applications. Ranging from 8 to 85 mm our robust linear bearings address a variety of machine tools—from small, three-axis machines to five-axis machining centres capable of handling large, heavy parts.

Technical Features

- Stainless steel and carbon steel
- Corrosion resistant surface treatments including black chrome
- C-wiper to protect from dust, metal chips and cutting fluid
- C-lube self-lube technology

Application Examples

- Machining centres
- CNC lathes
- Grinding machines
- Lens polishing machines



IKO Gentle to The Earth

Nippon Thompson Co., Ltd. is working to develop global environment-friendly products.

It is committed to developing products that make its customers' machinery and equipment more reliable, thereby contributing to preserving the global environment.

This development stance manifests well in the keyword "Oil Minimum."

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**ROLMAN
WORLD**



Just scan this QR code with your smartphone or visit our website at: **www.rolman.com** - there you will find a highly competent contact in your immediate vicinity

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