

IKO Linear Motion Rolling Guide Series,

IKO Linear Motion Rolling Guide Series General Catalog Consists of **BLUE** and (CAT-1578E)

BLUE



CAT-1578E

【Models】

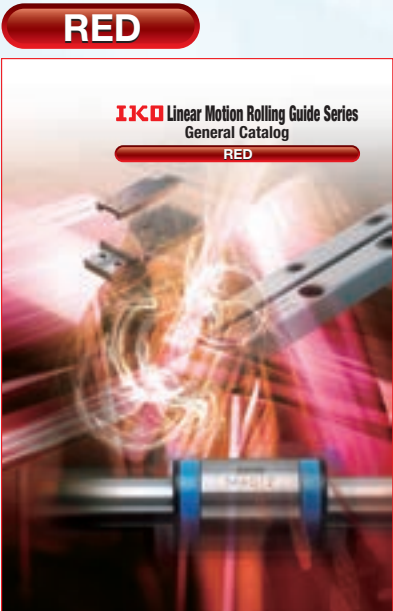
- Rail Guide Type
- Endless Linear Motion Type

C-Lube Linear Way ML Linear Way L	C-Lube Linear Way MLV	C-Lube Linear Way MV	C-Lube Linear Way ME Linear Way E	C-Lube Linear Way MH Linear Way H
ML · LWL	MLV	MV	ME · LWE	MH · LWH
Linear Way F	C-Lube Linear Way MUL Linear Way U	C-Lube Linear Roller Way Super MX Linear Roller Way Super X	Linear Roller Way X	Linear Way Module
LWF	MUL · LWU	MX · LRX	LRWX	LWLM · LWM LRWM

M47

Configuration of General Catalog

RED , the two volumes.
(CAT-1579E)



CAT-1579E

【Models】

- Rail Guide Type
Limited Linear Motion Type
- Shaft Guide Type
Endless Linear Motion Type
Limited Linear Motion Type
Limited Linear Motion Type + Rolling Motion Type
- Flat Guide Type
Endless Linear Motion Type
Limited Linear Motion Type

Rail Guide Type
Crossed Roller Way

CRW(G)(…H)
CRWU(G)



Rail Guide Type
Linear Slide Unit

BWU·BSP(G)
BSU…A



Shaft Guide Type
Linear Ball Spline

MAG·LSAG
LSB·LS



Shaft Guide Type
Linear Bushing

LMG·LM·LMS



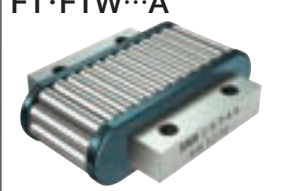
Shaft Guide Type
Stroke Rotary Bushing

ST·STSI·BG



Flat Guide Type
Roller Way & Flat Roller Cage

RW·SR·GSN
FT·FTW…A



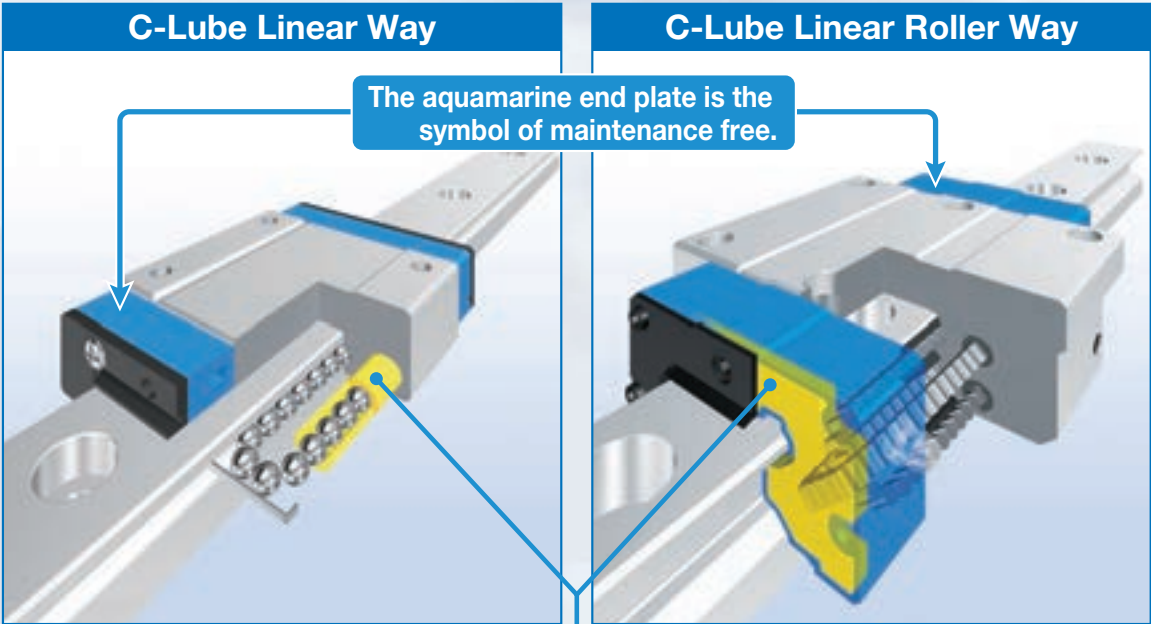
M

IKO Features of Maintenance Free Series



Features of C-Lube Linear Way and C-Lube Linear Roller Way

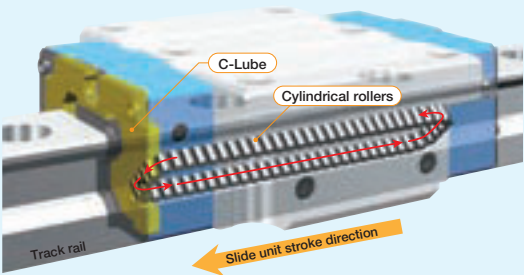
Original and world's first structure with [C-Lube]



C-Lube integrated

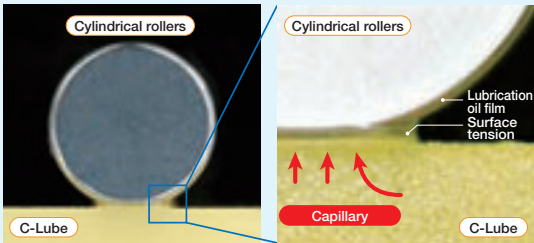
Lubrication oil is carried through circulation of rolling elements

The lubrication oil is supplied directly to the rolling elements, not to the track rail.
When rolling elements make contact with the capillary lubricating element integrated with the circulation path of slide unit rolling elements, the lubrication oil is supplied to surfaces of rolling elements and carried to the loading area through circulation of rolling elements.
This results in adequate lubrication oil being properly maintained in the loading area and lubrication performance will last for a long time.



Lubrication oil is directly supplied to surfaces of the rolling elements

The surface of capillary lubricating element is always covered with the lubrication oil.
Lubrication oil is continuously supplied to the surface of rolling elements by surface tension in the contact of capillary lubricating element surface and rolling elements.
On the surface of capillary lubricating element with which the rolling elements make contact, new lubrication oil is always supplied from the other sections.



Long term maintenance free is realized with
oil impregnated with C-Lube only !!



Maintenance free

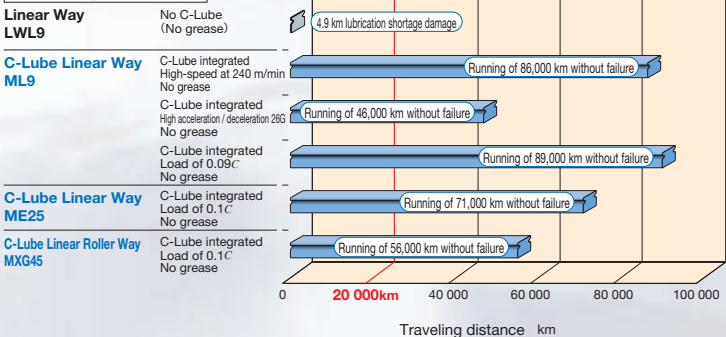
This endures running over 20,000 km without oil feeding with lubrication oil in the C-Lube only.
Furthermore, grease is pre-packed in the slide unit so long term maintenance free can be realized.



Maintenance free is achieved
until the end of device life !

*1. Typical device life is assumed. Re-greasing may be necessary depending on use conditions.

Durability test result



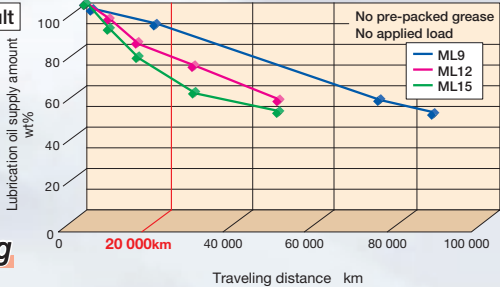
Eco-friendly

As lubrication oil in C-Lube is supplied by the amount necessary to maintain lubrication performance of the rolling guide, the consumption of lubrication oil is reduced and lubrication performance is maintained even when it run for a long period.



Eco-friendly specification reducing
usage of lubrication oil!

Oil supply test result

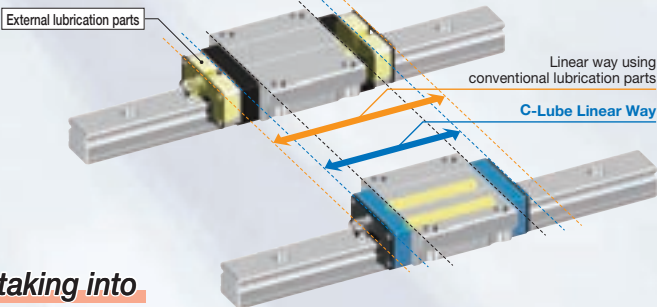


Compact

As C-Lube Linear Way and C-Lube Linear Roller Way are integrated with lubrication part C-Lube, their slide units are not long unlike types with external lubrication parts.
Replacement of conventional parts is easy free from constraints of mounting space and stroke length.



Compact design taking into
account compactness!



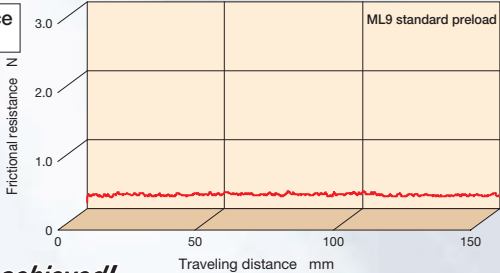
Smooth

C-Lube Linear Way and C-Lube Linear Roller Way do not generate slide resistance unlike lubrication parts external to the slide unit that make contact with the track rail.
Driving force follow-up property is superior and energy is saved by improvement of accuracy and reduction of friction loss.



Light and smooth motion is achieved!

Frictional resistance test result

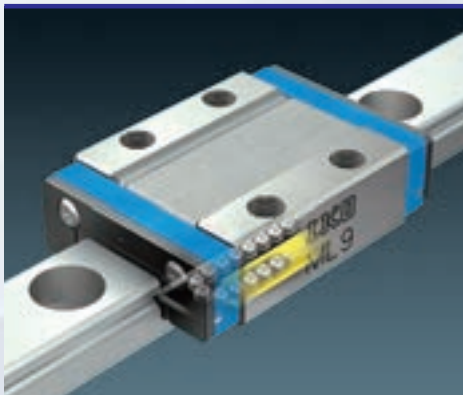


M

M50

Models and Size Variations

A variety of models and size variations



Ball Type Miniature Series

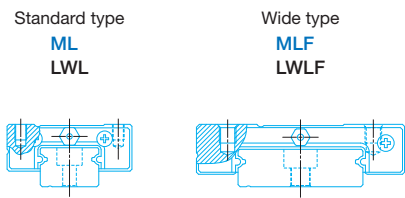
C-Lube Linear Way ML
C-Lube Linear Way MLV
Linear Way L

Thanks to the structure with two rows of balls to contact with the way at four points, stable accuracy and rigidity can be achieved even in applications where load has variable direction and size or complex load is applied, despite its very small body.



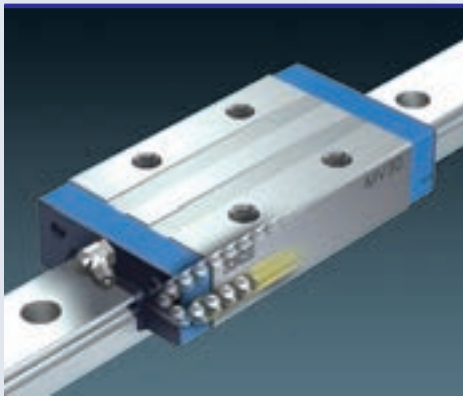
Micro Linear Way L

As the lineup of track rail width from 1 mm to 6 mm is available, you can select an optimal product for the specifications of your machine and device. For LWL1, world's smallest size is realized: track rail width of 1 mm, slide unit width of 4 mm and assembly height of 2.5 mm.



	Length of slide unit
C	Short
No symbol	Standard
G	Long
L	Extra long

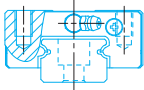
	Size
Standard type	1, 2, 3, 5, 7, 9, 12, 15, 20, 25
Wide type	4, 6, 10, 14, 18, 24, 30, 42



Ball Type Low Profile/Light Weight Series

C-Lube Linear Way MV

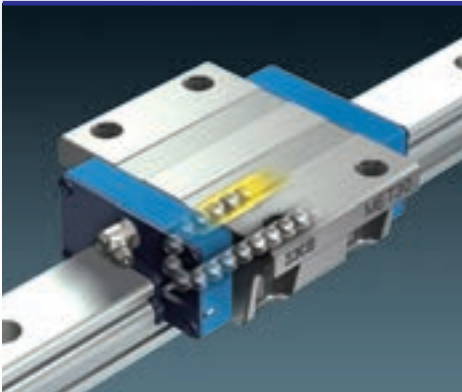
Despite its extra low profile and extra light weight, this linear motion rolling guide has the maximum load rating among the ball types while achieving high load capacity.



Length of slide unit
Standard

Size
20, 25, 30

M51

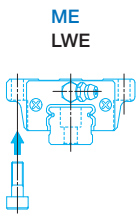


Ball Type Compact Series

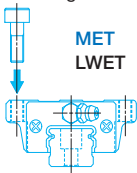
C-Lube Linear Way ME
Linear Way E
Low Decibel Linear Way E

Versatile linear motion rolling guide that has achieved utility pursuing compactness in every aspect. Low decibel types with resin separator to prevent direct contact between balls are also available.

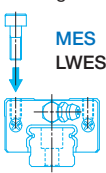
Flange type
mounting from bottom



Flange type
mounting from top

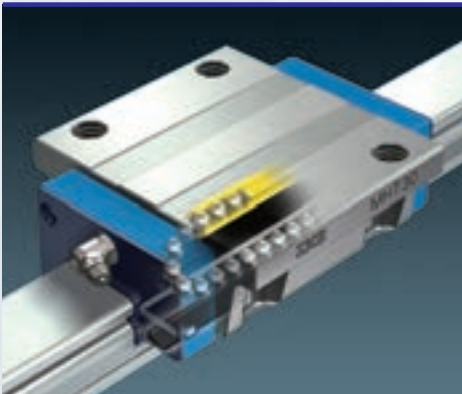


Block type
mounting from top



Length of slide unit	
C	Short
No symbol	Standard
G	Long

Size
15, 20, 25, 30, 35, 45

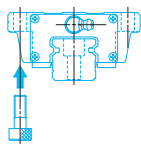


Ball Type High Rigidity Series

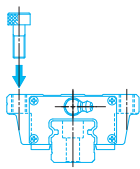
C-Lube Linear Way MH
Linear Way H

High rigidity linear motion rolling guides designed to evenly support high load capacity by incorporating large-diameter balls. Stable accuracy and rigidity can be achieved even in applications where load with variable direction and size and complex load are applied.

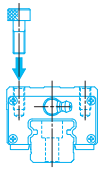
Flange type
mounting from bottom



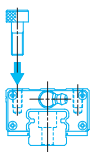
Flange type
mounting from top⁽¹⁾



Block type
mounting from top



Compact block type
mounting from top



Note ⁽¹⁾ Some models may be mounted from bottom.

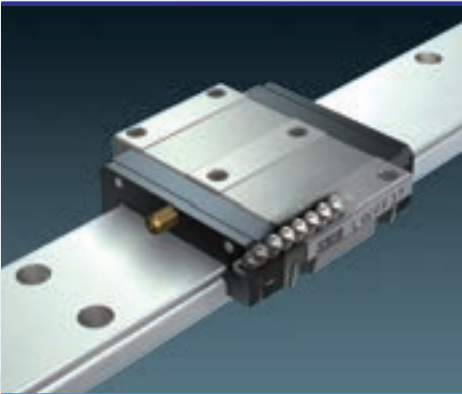
Length of slide unit	
C	Short
No symbol	Standard
G	Long
L	Extra long

Size
8, 10, 12, 15, 20, 25, 30, 35, 45, 55, 65

M

Models and Size Variations

A variety of models and size variations

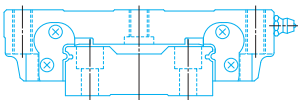


Ball Type Wide Type Series

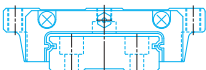
Linear Way F

As wide track rail is used and the distance between the load points is long, this is a linear motion rolling guide suitable to single-row use due to the structure resistant to across-the-width moment load. It is also resistant to complex load.

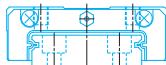
Flange type
mounting from top / bottom
LWFFH



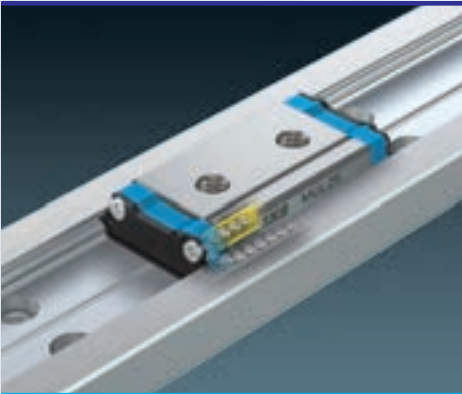
Flange type
mounting from top / bottom
LWFF



Block type
mounting from top
LWFS



Length of slide unit	
No symbol	Standard
Size	
LWFFH	40,60,90
LWFF	33,37,42,69
LWFS	33,37,42



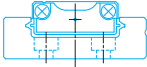
Ball Type U-Shaped Track Rail Series

C-Lube Linear Way MUL

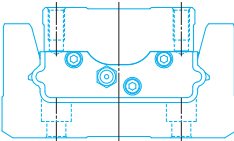
Linear Way U

Linear motion rolling guide of the structure with way inside the track rail of U-shaped section and slide unit therein. With the U-shaped track rail, rigidity against the track rail moment load and torsion is significantly improved.

Small type
MUL
LWUL



Standard type
LWU



Length of slide unit	
No symbol	Standard
Size	
MUL	25, 30
LWUL	25, 30
LWU	40, 50, 60, 86, 100, 130

M53

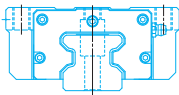


Roller Type

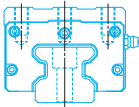
C-Lube Linear Roller Way Super MX
Linear Roller Way Super X

Linear motion rolling guide that has achieved the highest level of performance in all characteristics utilizing the roller's superior characteristic, such as rigidity, load capacity, running accuracy and vibration damping property. With extra long unit with the maximum slide unit length, load capacity and rigidity are improved and running performance with super high accuracy is realized.

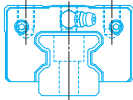
Flange type
mounting from top / bottom
MX⁽¹⁾
LRX⁽¹⁾



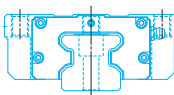
Block type
mounting from top
MXD
LRXD



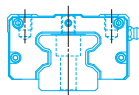
Compact block type
mounting from top
MXS
LRXS



Low profile flange type
mounting from top
MXN



Low profile block type
mounting from top
MXNS



Note (1) Size 20 series allows only for mounting from top and model mounting from bottom is MXH and LRXH.

Length of slide unit			
C	No symbol	G	L
Short	Standard	Long	Extra long

Size
10, 12, 15, 20, 25, 30, 35, 45, 55, 65, 85, 100

Four-row roller guide of world's smallest size
Track rail width of 10 mm



Super high rigidity
Super high load capacity
High running performance
Excellent frictional characteristics

Stainless steel made
LRXD10...SL

M

IKO

Mechatronics Series

TU Series

IKO Precision Positioning Table TU is a compact and slim positioning table with good load balance and high resistance to complex loads, in which the side table is arranged inside the U-shape track rail. Six types with a track rail width of 25 ~ 130mm are available. Each slide table length can be selected as required. Different table specifications including ball screw, motor, sensor, etc. can be selected. This allows each user to configure the most suitable positioning table for each application.

Abundant options meet diversified market needs such as a motor loopback specification, table with bellows, table with bridge cover, and table finished by black chrome surface treatment.

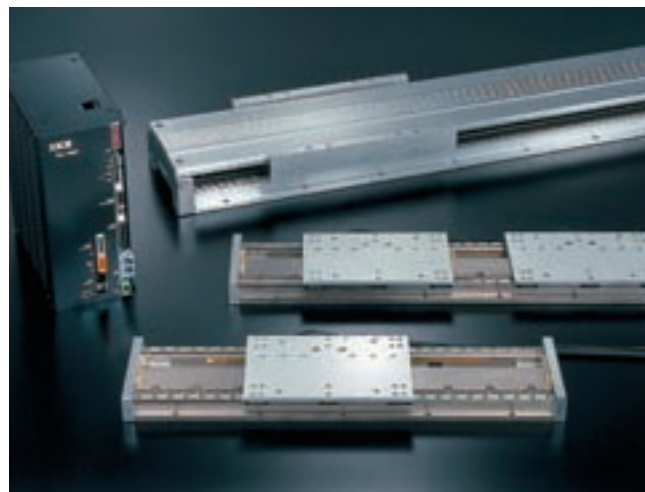


Linear Motor Table LT

The **IKO Linear Motor Table LT** is a compact and lightweight direct-drive positioning table with a very small sectional height in which an AC servo-motor and an optional linear scale are integrated in a moving table and a bed made of aluminum alloy.

The **IKO Linear Motor Table LT** employs a C-shaped magnet yoke, and a coil board is sandwiched between two stator magnets. It provides a high thrust of 450N though its height is only 40 mm. The moving table is as light as 1.5 kg but provides high thrust. It permits high acceleration and deceleration exceeding 10 G. (In the case of LT150 CG.) Also, High Thrust Series **LT...H** outputs 900N thrust.

Using advanced servo technology, this product achieves high static stability and high-speed stability.



M55

IKO

Presentation of Mechatronics Series

Long-stroke Series

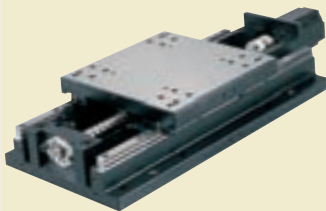
- Standard type which has been practically used in many fields.
- Stable characteristics in parallel use together with Linear Way



TSL...M

High-rigidity Series

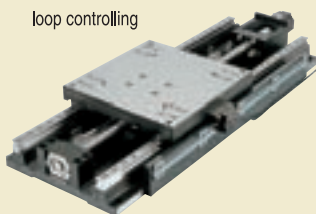
- High reliability and high accuracy with component parts strictly selected
- High rigidity and large mounting weight



TSLH...M · CTLH...M

Super Precision Series

- XY configuration available for advanced inspection stage
- High positioning accuracy realized with IKO Roller technology and full closed loop controlling



TX...M CTX...M

Compact Series

- Compact structure with a small sectional height
- High reliability and high accuracy achieved by using Crossed Roller Way



TS · CT

High-speed Long Stroke Series

- High-speed type using a timing belt drive
- Stable and high traveling performance in parallel use together with Linear Way



TSLB

Precision Positioning Table

- Light weight precision positioning table made of high-strength aluminum alloy.
- Built-in C-Lube for long-term maintenance-free service.



TE...B

Micro Precision Positioning Table

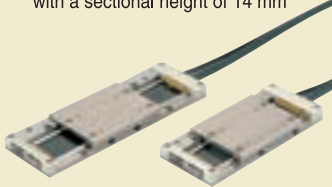
- Very compact positioning table that is 20mm high(sectional) and 17mm wide driven by a ground ball screw.
- +/-0.5micron repeatability is achieved with 60 mm stroke length.



TM

Nano Linear

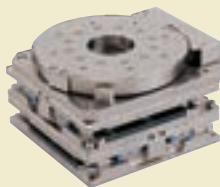
- Direct drive type with high speed and high response
- Maximum thrust of 25 N achieved with a sectional height of 14 mm



NT...V

Alignment Stage Direct Drive

- Ultra compact XY θ stage contributing to space saving
- High resolution and response realized with optical scale



SA...DE

M

IKO Introduction of Technical Service Site

"IKO Technical Service Site" can be accessed from our home page. The site provides various tools for selecting Linear Ways and Linear Roller Ways. Please utilize these tools for assistance when selecting products. Additionally the site also provides CAD data and product catalogs for the Needle Series, Linear Motion Rolling Guide Series, and Mechatronics Series for download. Please utilize them to improve your design efficiency.

<https://www.ikont.co.jp/eg/>



1. Technical calculations

For Linear Way/Linear Roller Way load and life calculation, you can obtain the calculated load and the rating life by entering the operating conditions.

Also you can derive the motor torque required for operation and the effective thrust force during operation in the sections of motor torque calculation and calculation of effective thrust force of linear motor tables respectively, and output the calculation results in PDF format, as well as save the histories.

2. Selection of Identification Number

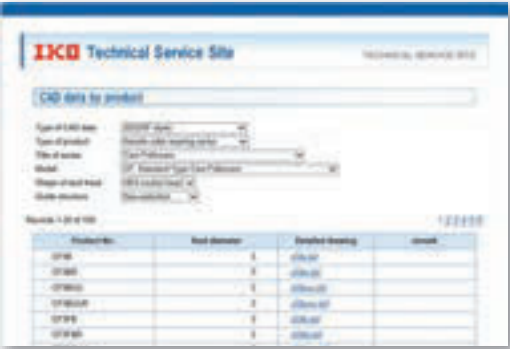
By selecting such specification as model code, dimensions, part code, material code, preload symbol, classification symbol, interchangeable code and supplemental code of Linear ways/Linear roller ways, you can easily specify the identification number used for ordering.

Also you can browse the CAD data of the selected products, calculate the load, and output the selection results in PDF format, as well as save the histories.

3. Downloading CAD data

2-dimensional CAD data (DXF file)

There are two types of figures, brief figure and detailed figure. The brief figure shows only the external view lines, and the detailed figure shows the detailed lines. The drawing consists of three drawings: front view, side view and plain view. The scale shows only the original size (1:1), and it does not show dimension lines.



3-dimensional CAD data

It is linked to the mechanical parts CAD library "PART community". Entering the rail dimension and option contents to the detail, you can view the 2D/3D CAD data suitable for the specification for free of charge.



4. Downloading Catalog and Operation Manual

You can download product catalogs of needle series, linear motion rolling guide series and mechatronics series, operation manuals of precision positioning tables and various electrical components in PDF format, as well as support software for precision positioning tables. If you would like a copy of our catalog, please visit the IKO official website and apply for the catalog, or contact our regional office or sales office nearby.

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