

U.S. PATENTED

**IKO**

**Linear Roller Way Super X**

**LRX**

**The Roller Effect Monster**

LRXG85

CAT-57148

See you again at  
**IKO Website**  
<http://www.ikont.co.jp/eg/>



# Advanced original design Four-row Roller Type

Super big size with track rail width 100 mm  
and stainless steel made with track rail width 10mm are newly introduced!

**IKO**

Linear Roller Way

**SUPER X**  
SERIES

IKO LRXG100

**NEW**

**L\_RXD10...SL**

*Stainless Steel model*





# The Roller Effect Monster

IKO Linear Roller Way Super X

# LRX

**IKO**

Linear Roller Way

# SUPER X

SERIES

In **IKO** Linear Roller Way Super X, 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. Owing to its small elastic deformation, stable operation is ensured even under heavy or fluctuating loads. Smooth and quiet motion, high reliability, high rigidity and high running accuracy are realized.

U.S. PATENT	
No.	5,800,064
No.	5,193,914
No.	4,505,522
No.	5,564,188
No.	5,374,126
No.	5,622,433
No.	6,176,617
No.	5,967,667
No.	5,464,288

**High Rigidity**

**Superior Damping Characteristic**

**Well-balanced Structure**

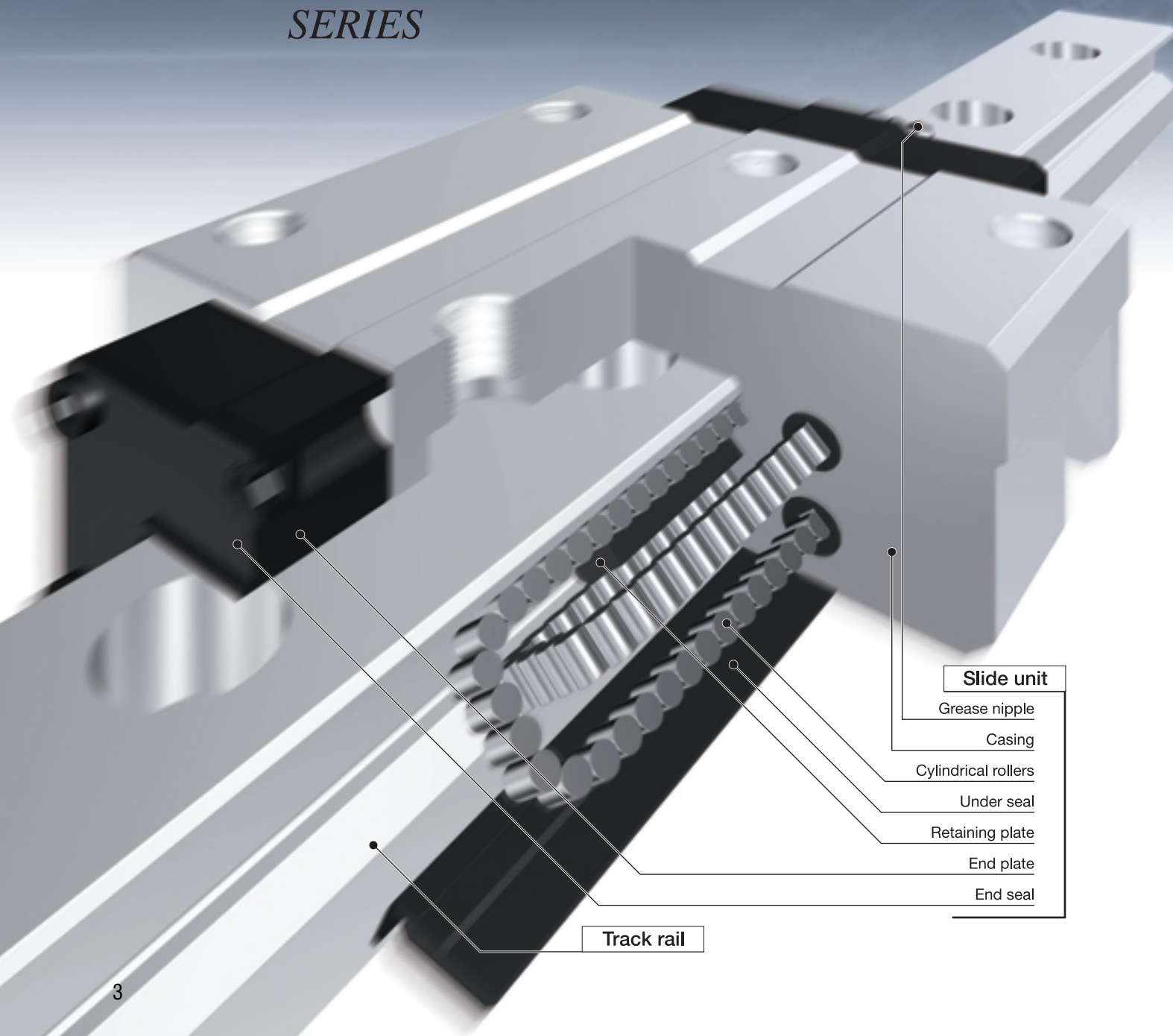
The Super X interchangeable series brings to you the “**Six Roller Effects**”, whenever and wherever they are required to give higher potentials for your application.

**High Load Capacity**

**Long Life and High Accuracy**

**Smooth and Quiet Motion**

In high rigidity and high load capacity **IKO** Linear Roller Way Super X series, the smallest size **LRX 10** is newly introduced covering a full range of variation. Nine types are now available in various sizes with track rail width ranging from 10mm to 100mm. Interchangeable, stainless and nineteen kinds of special options are also available.



Slide unit

Grease nipple

Casing

Cylindrical rollers

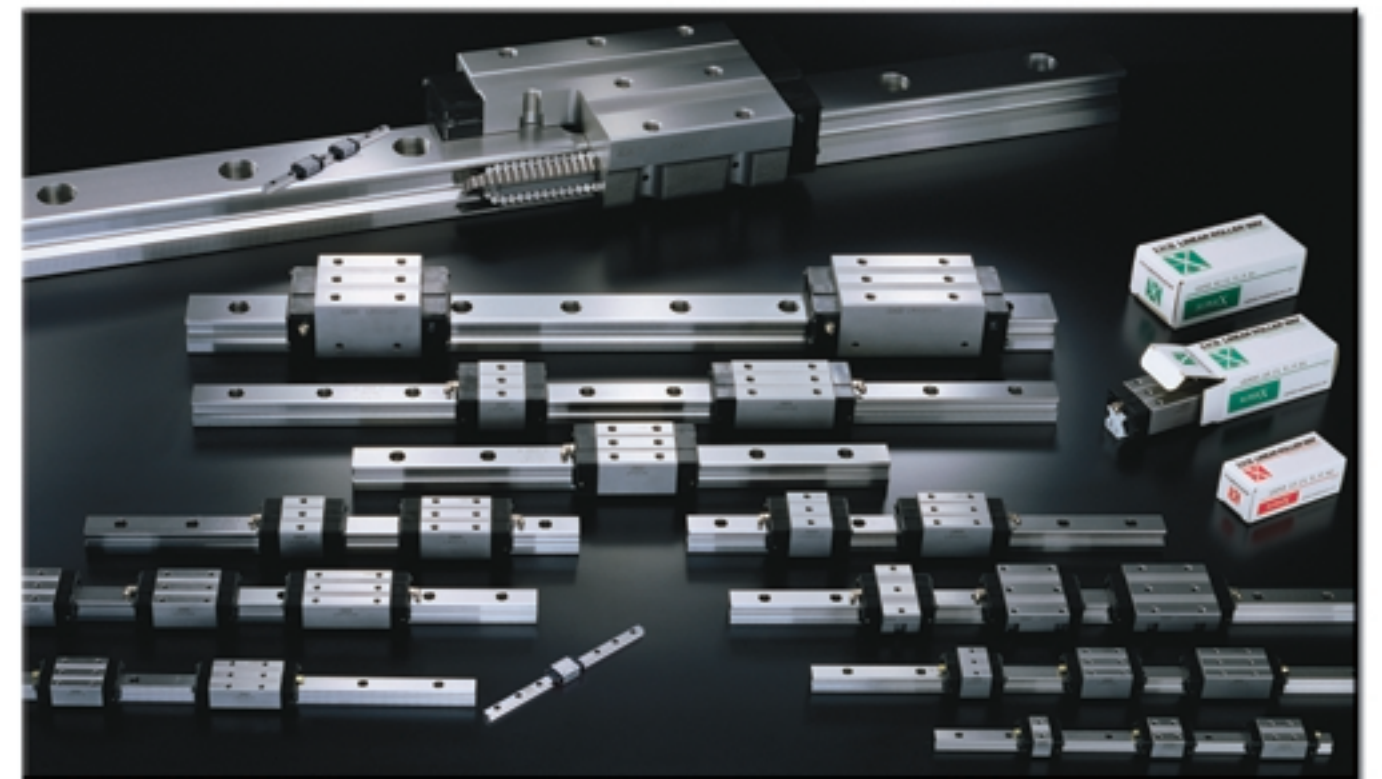
Under seal

Retaining plate

End plate

End seal

Track rail

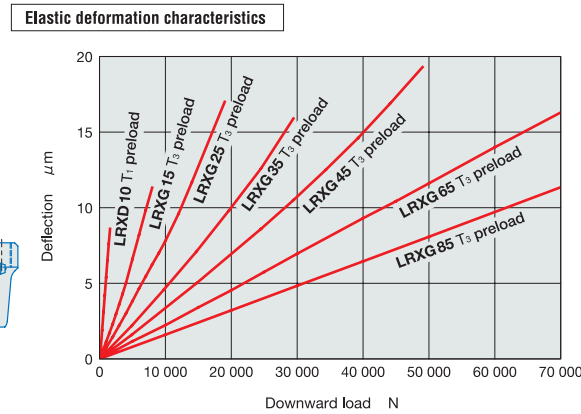
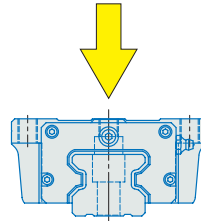


# The roller effects

## Super high rigidity

Rigidity of linear motion rolling guide has a large influence to the performance of machines or equipment in which they are assembled.

Very high rigidity of Linear Roller Way Super X is achieved owing to the excellent elastic deformation characteristics of cylindrical rollers which give smaller elastic deformation under load as compared with steel balls. In addition, a large number of cylindrical rollers are incorporated in the slide unit.

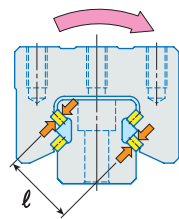


## High rigidity against any directional load

### Excellent load balance and moment load capacity

Cylindrical rollers are arranged in a well-balanced form so that they can uniformly withstand loads in all directions. In addition, rows are arranged in such a way that the moment arm distance "ℓ" between the loading points is wide under  $T_0$  moment to give high moment load capacity.

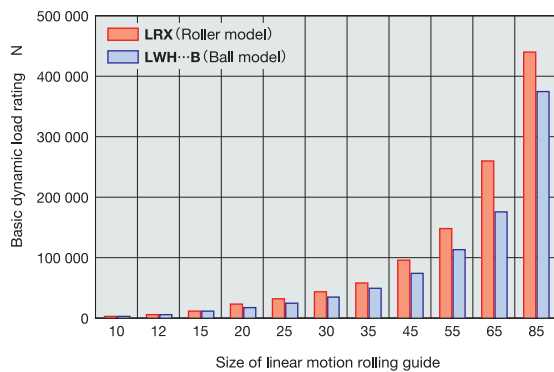
When  $T_0$  moment is applied



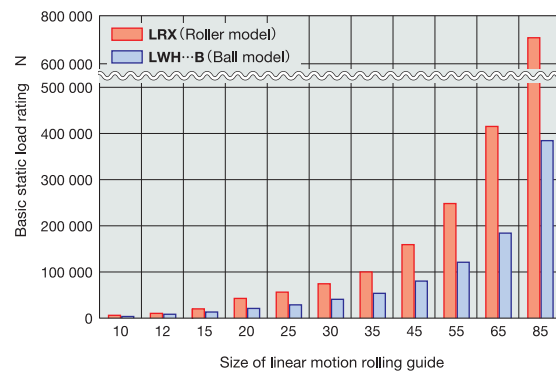
## Super high load capacity

Cylindrical rollers give a larger contact area compared to steel balls, and higher load capacity is attainable when cylindrical rollers are used. Incorporating a large number of cylindrical rollers, Linear Roller Way Super X has very high load ratings.

Comparison of basic dynamic load ratings



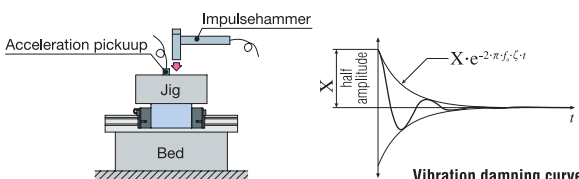
Comparison of basic static load ratings



## Long serviceable life

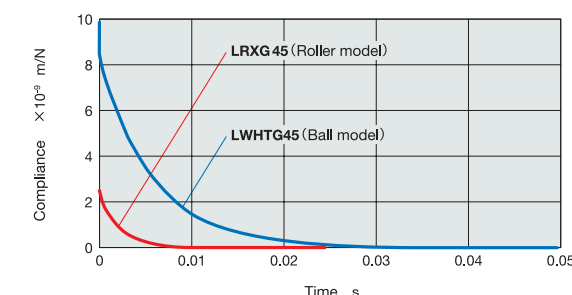
## Excellent vibration damping characteristics

As compared with ball types in the same size, Linear Roller Way Super X has higher rigidity and gives much smaller deformation value under repeated fluctuating load. The natural frequency is high, and the vibration damping time can be very short.



## Quick positioning for the minimum tact time

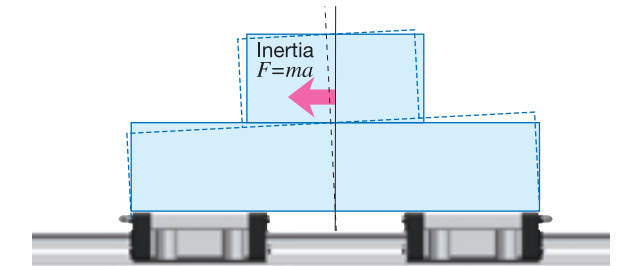
Vibration damping curve under downward excitation (half amplitude)



## High tact

Quick positioning is possible by high rigidity and excellent vibration damping characteristics of rollers even with a large inertia caused by the latest high tact positioning devices.

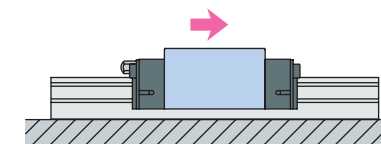
## Small posture alternation in high acceleration and quick stop



## Accurate positioning with excellent friction characteristics

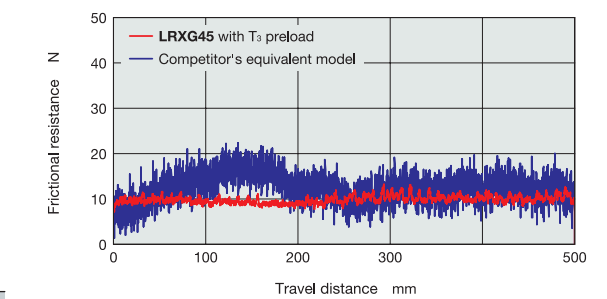
A unique roller retaining method is adopted, in which the end faces of cylindrical rollers are guided accurately by the retaining plate, so the skewing of cylindrical rollers is prevented and smooth motion is achieved.

As compared with the slide guides and ball type linear motion rolling guides, roller type has superior frictional characteristics and gives lower frictional resistance under preload. Good response to micro feeding and high positioning accuracy can thus be achieved.



## Saving driving power

Frictional resistance of LRXG45 with  $T_3$  preload

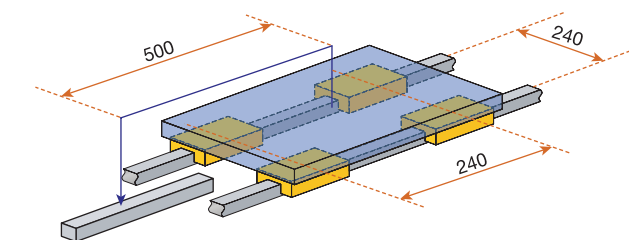
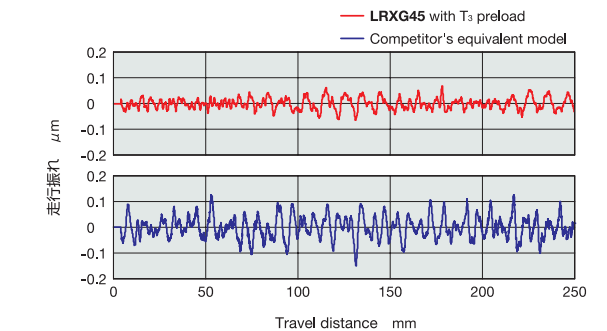


## Low noise and high running performance

Smooth and quiet motion is achieved by adopting the optimum design based on the analysis of roller re-circulation behavior. Furthermore, as the number of load carrying cylindrical rollers is large, the minute fluctuating deflection during travel is minimized.

## Superior accuracy in the operation

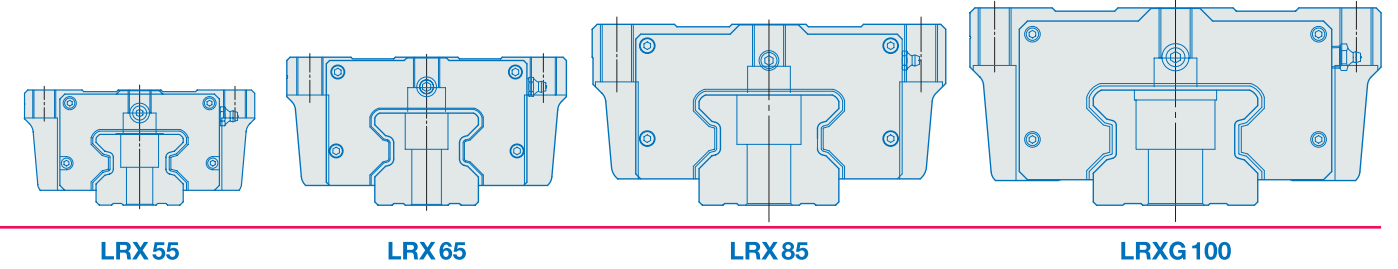
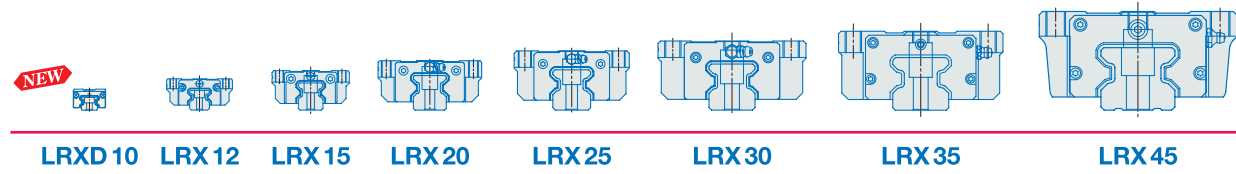
Running accuracy of LRXG45 with  $T_3$  preload & competitor's equivalent model





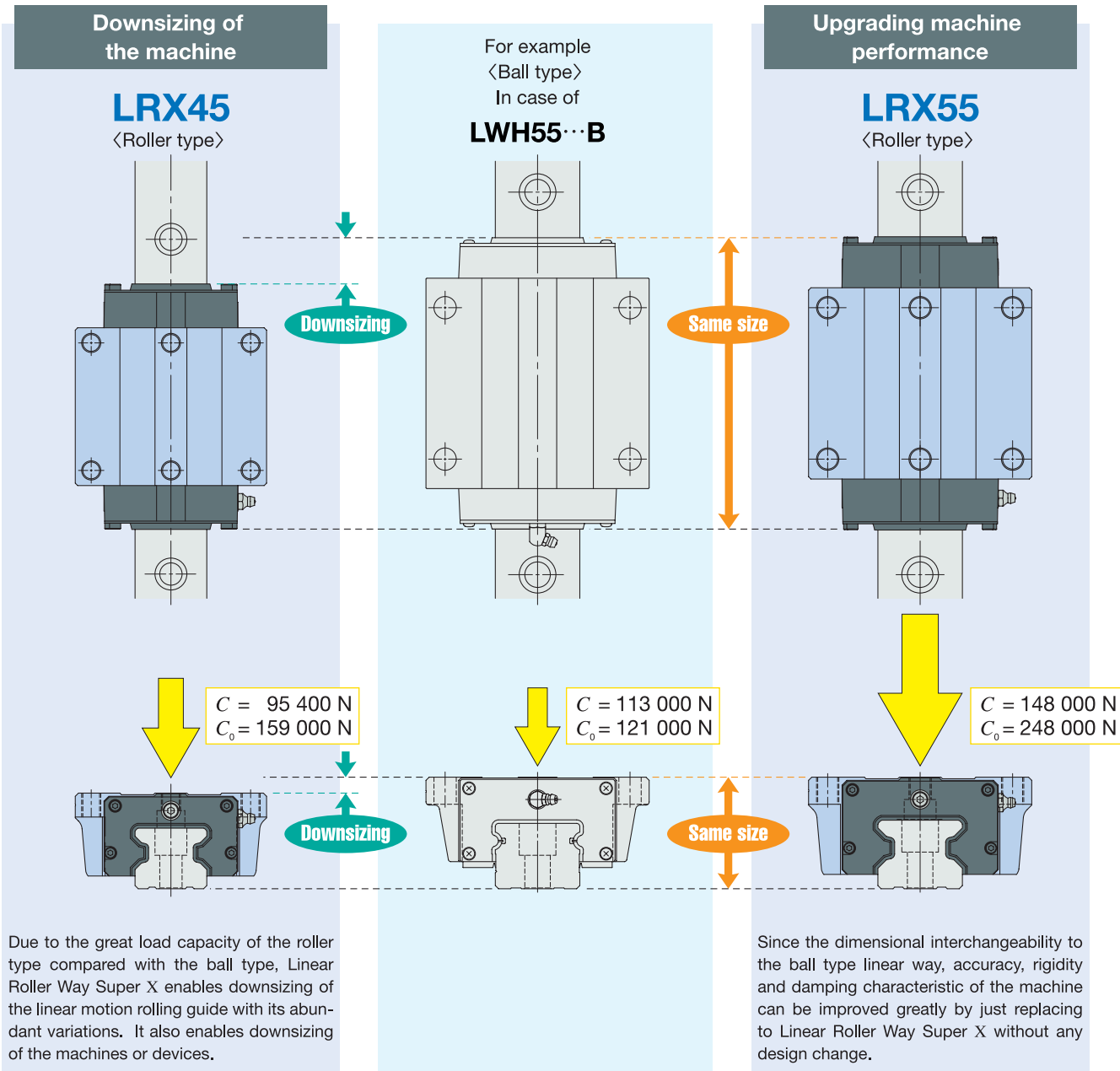
# Wide selection from various types and sizes

Linear Roller Way Super X contributes

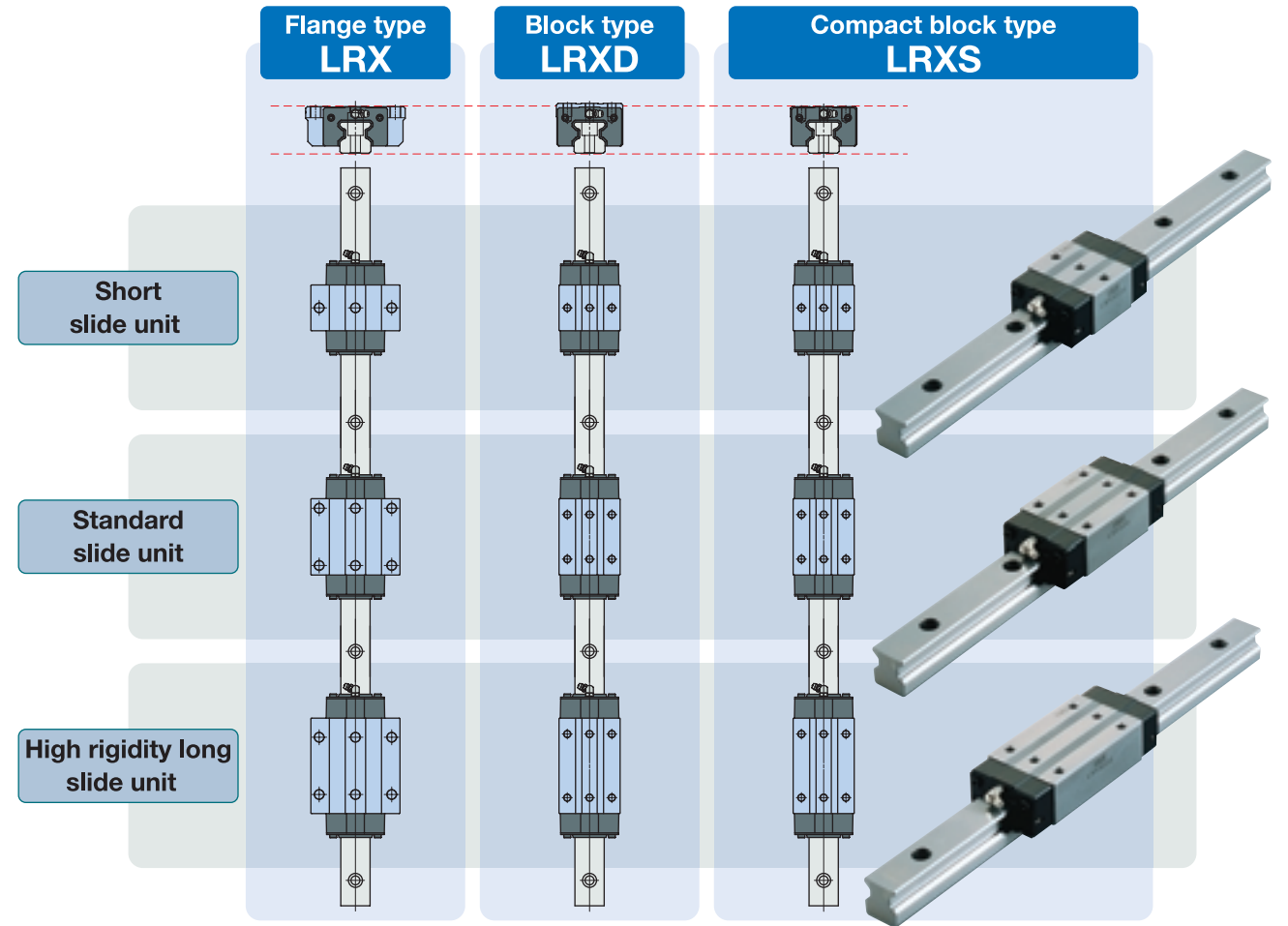


## Downsizing

Due to the great load capacity of the roller type compared with the ball type, Linear Roller Way Super X series enables downsizing of the linear motion rolling guide with its abundant variations. It also enables downsizing of the machines or devices.



## You can choose the best slide unit from nine shapes



## Standardized stainless steel

Stainless Linear Roller Way Super X is also available in some sizes and this is more resistant to corrosion than high carbon steel model. They are suitable for the applications in moist atmosphere and in the use where no oil or rust preventive oil is available or limited. Load capacity and other performances are the same as high carbon steel model.

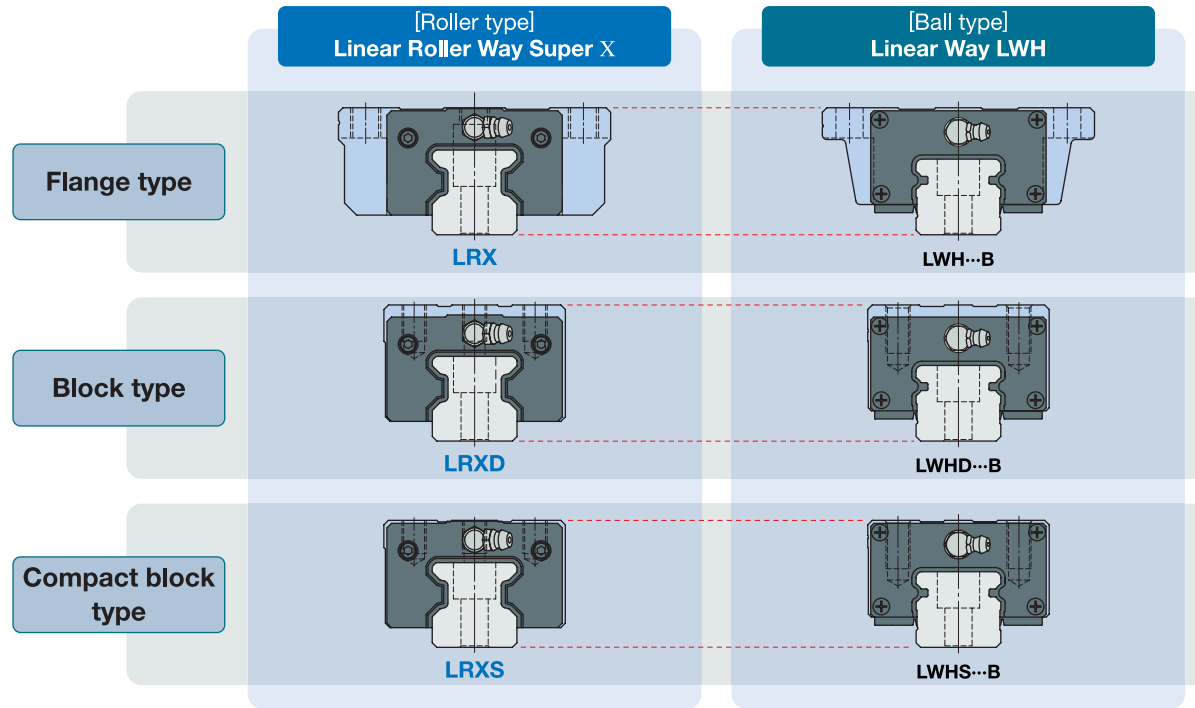


1N=0.102kgf=0.2248lbs.  
1mm=0.03937inch

# Good handling ability and various optional parts

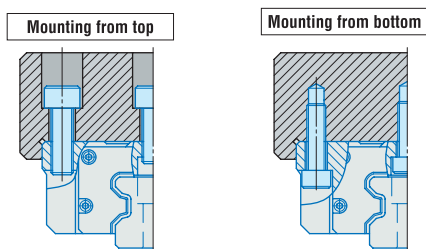
## Dimensional interchangeability to the ball type

The mounting dimensions are the same as those of ball type Linear Way H. So this guide can replace the ball type without any change in mounting dimensions in the existing machines or equipment.



## Flanged, blocked and compact blocked types are available

Flanged slide unit can be mounted from either direction top or bottom.

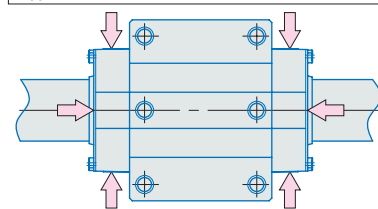


## Six oil supply holes provided as standard specification

From size 35 to 100 models, oil/grease can be supplied from six positions.

As the lubricating position can be selected according to the specification of the machine or equipment, design flexibility is enhanced.

Applicable model sizes: 35, 45, 55, 65, 85 and 100



## Various optional parts

Nineteen kinds of optional parts are prepared for Linear Roller Way Super X. They can be specified by the supplemental codes in the identification number. So the right item can be specified easily according to the applications when the customer orders.

Example of identification number

**LRXC 35 C1 R640 T<sub>2</sub> P S1 /F**

Supplemental code

# Interchangeable specification

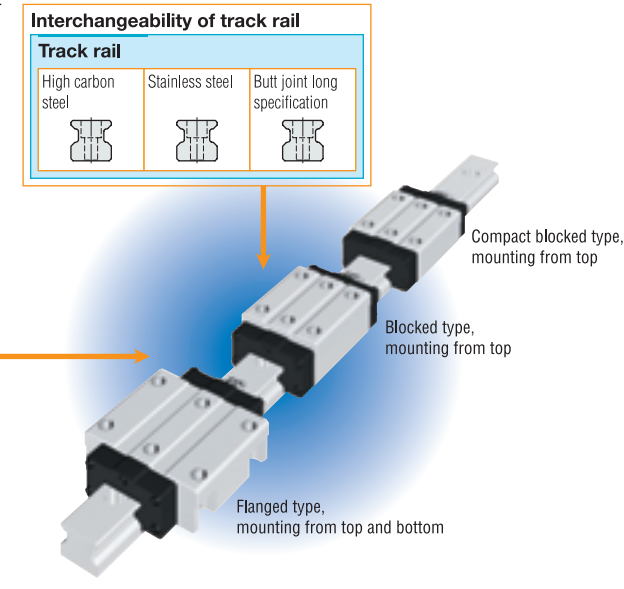
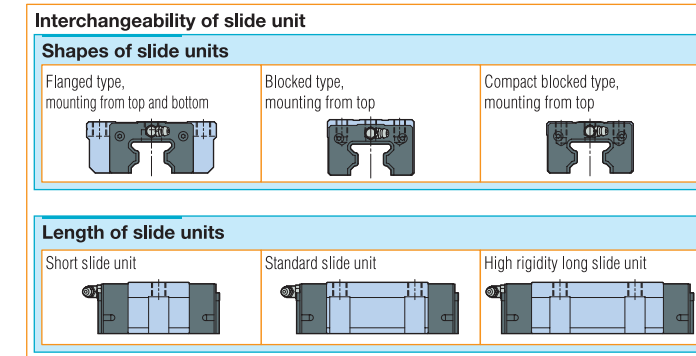
The interchangeable specification is produced by **IKO** original precision manufacturing technology and the dimensional accuracy of both slide unit and track rail is strictly controlled to achieve the interchangeability of higher standard.

- Requirements of ;**
- Extending machine life and increase rigidity
  - Improving machining accuracy
  - Replace only the slide unit
  - Increase the number of slide unit
  - Replace the track rail
  - Extend the length of track rail
  - Stock only slide units for back up

- Interchangeable specification realizes ;**
- Quick design change.
  - Higher accuracy and changing preload class.
  - Slide unit and track rail can be supplied and handled individually.
  - Slide unit in any shape with any accuracy or preload can be matched to a track rail.
  - Slide unit and track rail can be stocked separately, which contributes to minimize inventory.

## Interchangeability among types of slide unit

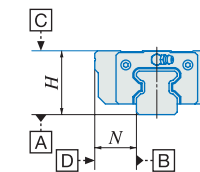
Various types of slide units with different sectional shapes and length are prepared. All of these slide units can be mounted on the same track rails freely as required.



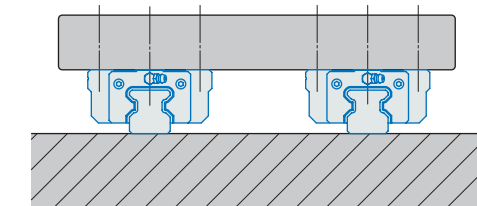
## Interchangeability in accuracy

Two accuracy classes, High and Precision class are prepared and they can be used for the application requiring high running accuracy. Furthermore, the height variation among multiple sets is also controlled with high level of accuracy, ensuring that these products can be used for parallel track rail arrangement.

- Two accuracy grades are available.**
- Dimension  $H$  and  $N$
  - Dimensional variation of  $H$  and  $N$  among in the one set
  - Parallelism in the operation of  $\square C$  surface to  $\square A$  surface
  - Parallelism in the operation of  $\square D$  surface to  $\square B$  surface

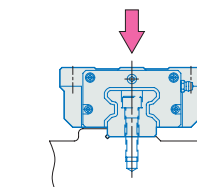


- Suitable for using in parallel.**
- Dimensional variation of  $H$  dimension for multiple assembled sets

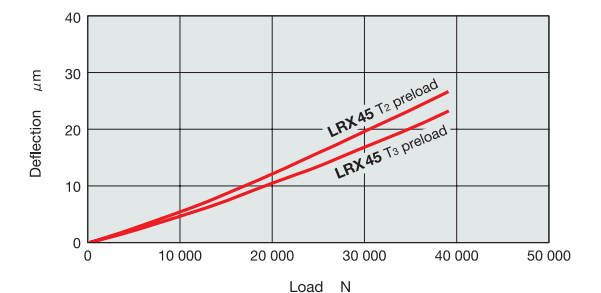


## Interchangeability in preload

High accuracy dimensional control owing to a simple structure has made it possible to realize the interchangeability in preloaded slide units. In the interchangeable specification products, several preload types are prepared so that these products can be used for the application requires higher rigidity.



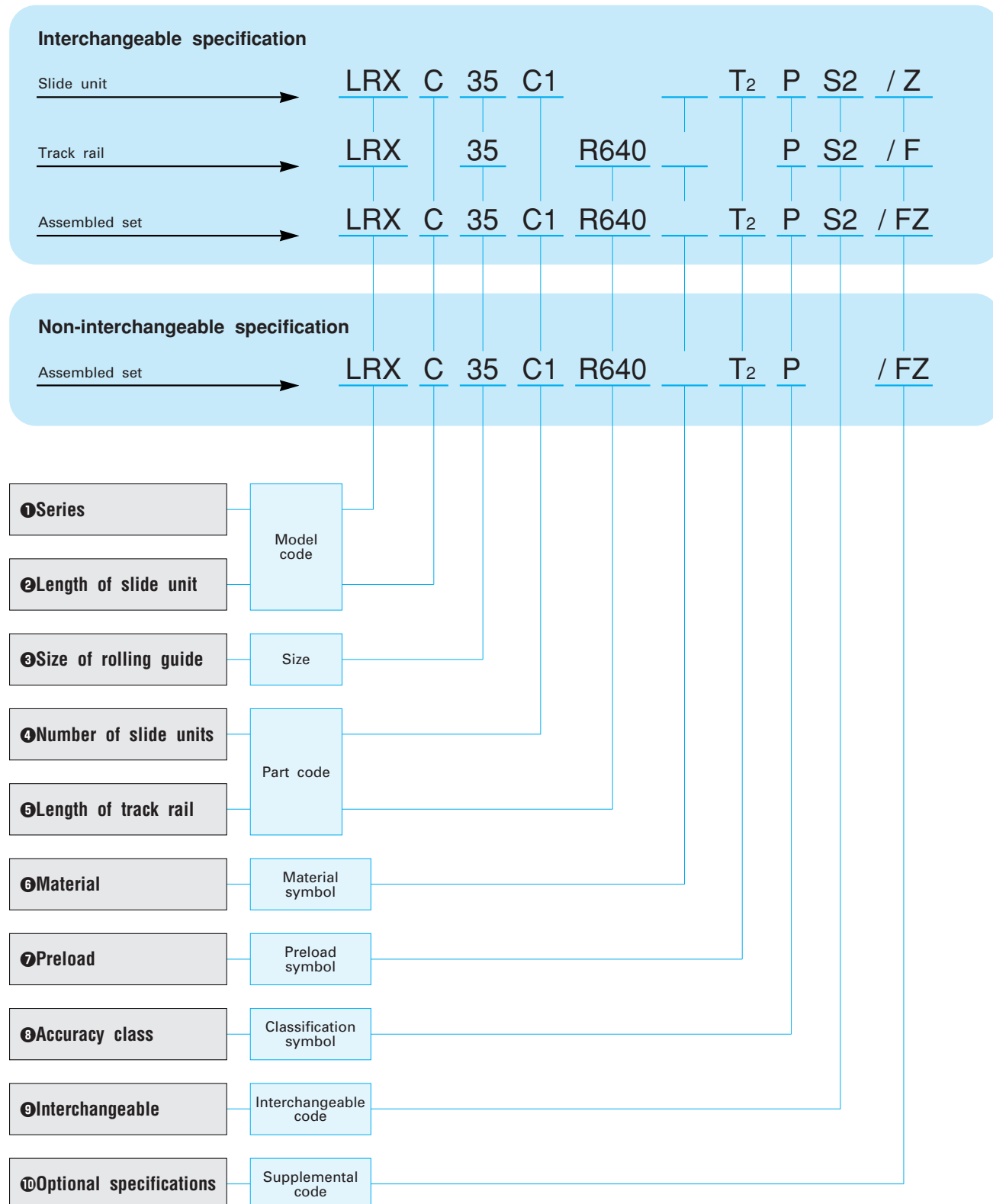
Slide unit with higher preload symbol offers greater rigidity.



1N=0.102kgf=0.2248lbs.  
1mm=0.03937inch

# Identification number

The specification of Linear Roller Way Super X is indicated by the identification number, consisting of a model code, a size, a part code, a material symbol, a preload symbol, a classification symbol, an interchangeable code, and any supplemental codes.



<b>①Series</b>	Flange type mounted from both the upper/lower sides : LRX(*) Block type mounted from the upper side : LRXD Compact block type mounted from the upper side : LRXS Note(1) : The size 20 models can be mounted from the upper side only. For mounting from the lower side, LRXH can be used.	For available models and sizes, see Table 1. For the model code of a single track rail of interchangeable specification, indicate LRX.
<b>②Length of slide unit</b>	Short : C Standard : No symbol High rigidity long : G	For available models and sizes, see Table 1.
<b>③Size of rolling guide</b>	10, 12, 15, 20, 25, 30, 35, 45, 55, 65, 85, 100	For available models and sizes, see Table 1.

Table 1 Models and sizes of Linear Roller Way Super X

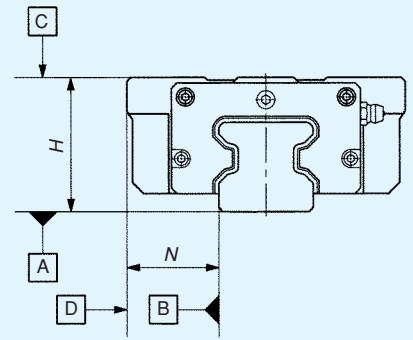
Material	Shape	Model	Size												
			10	12	15	20	25	30	35	45	55	65	85	100	
High carbon steel made	Flange type	LRXC	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	—	—
		LRX	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	○	—
		LRXG	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	○	○
	Block type	LRXDC	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	—	—
		LRXD	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	—	—
		LRXDG	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	—	—
		LRXSC	—	—	☆	☆	☆	☆	—	—	—	—	—	—	—
	Compact block	LRXS	—	—	☆	☆	☆	☆	—	—	—	—	—	—	—
LRXSG		—	—	☆	☆	☆	☆	—	—	—	—	—	—	—	
Stainless steel made	Block type	LRXDC...SL	—	☆	☆	☆	☆	☆	—	—	—	—	—	—	—
		LRXD ...SL	☆	○	☆	☆	☆	☆	☆	—	—	—	—	—	—
		LRXDG...SL	—	☆	☆	☆	☆	☆	☆	—	—	—	—	—	—

Remark : ☆ indicates that interchangeable specification product is available.

<b>④Number of slide units</b>	Assembled set : C○ Slide unit : C1	For an assembled set, indicate the number of slide units assembled on one track rail. For a slide unit only, indicate by "C1".
<b>⑤Length of track rail</b>	Assembled set : R○ Track rail : R○	Indicate the length of track rail in mm. For standard and maximum lengths, see Table 17.1 on page 27 and Table 17.2 on page 28.
<b>⑥Material</b>	High carbon steel made : No symbol Stainless steel made : SL	For available models and sizes, see Table 1.
<b>⑦Preload</b>	Standard : No symbol Light preload : T <sub>1</sub> Medium preload : T <sub>2</sub> Heavy preload : T <sub>3</sub>	Specify this item for an assembled set or a slide unit. Note that, for the slide unit of interchangeable specification, the preload amount that can be specified differs depending on the size. For details of preload amount, see Table 3 on page 13.
<b>⑧Accuracy class</b>	High : H Precision : P Super precision : SP Ultra precision : UP	The super precision class (SP) and the ultra precision class (UP) apply to the non-interchangeable specification products. In case of interchangeable specification products, assemble track rails and slide units of the same accuracy class. For details of accuracy, see Table 2 on page 13.
<b>⑨Interchangeable code</b>	Interchangeable specification : S2	Specify this item for interchangeable specification products. Assemble track rails and slide units with the interchangeable code.
<b>⑩Optional specifications</b>	/A, /D, /E, /F, /GE, /HP, /I, /JO, /LO, /LFO, /MN, /N, /PS, /Q, /T, /VO, /WO, /YO, /ZO	For applicable special specifications, see Table 5 on page 14.

Accuracy of Linear Roller Way Super X is shown in Table 2.

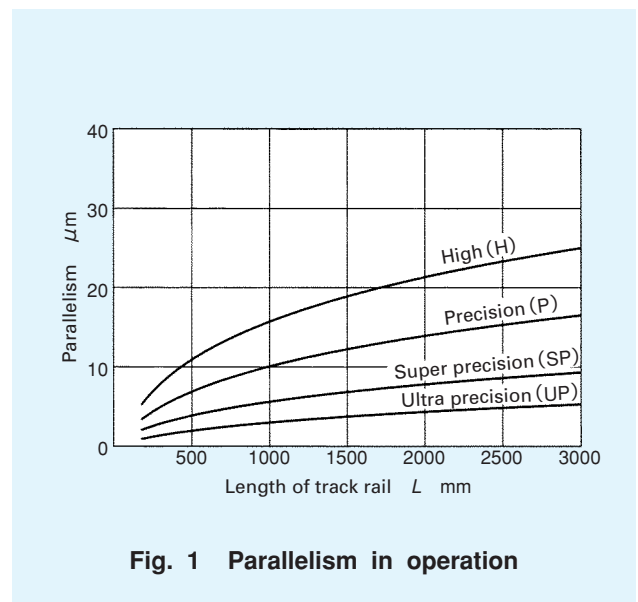
Table 2 Accuracy



unit : mm

Item	Classification (Symbol)	High	Precision	Super <sup>(1)</sup>	Ultra <sup>(1)</sup>
		(H)	(P)	(SP)	(UP)
Dim. H tolerance		±0.040	±0.020	±0.010	±0.008
Dim. N tolerance		±0.050	±0.025	±0.015	±0.010
Dim. variation of H <sup>(2)</sup>		0.015	0.007	0.005	0.003
Dim. variation of N <sup>(2)</sup>		0.020	0.010	0.007	0.003
Dim. variation of H for multiple assembled sets <sup>(3)</sup>		0.035	0.025	-	-
Parallelism in operation of C to A		See Fig. 1.			
Parallelism in operation of D to B		See Fig. 1.			

Note<sup>(1)</sup> : Applicable to the non-interchangeable specification products.  
<sup>(2)</sup> : Variation between slide units mounted on the same track rail  
<sup>(3)</sup> : Applicable to the interchangeable specification products.



The average amount of preload for Linear Roller Way Super X is shown in Table 3. For slide units of interchangeable specification, the type of preload that can be specified differs depending on the size. The applicable preload types for each size are shown in Table 4.

When both rigidity and vibration characteristics are important, the standard preload amount is 1/2 of the applied load.

Table 3 Preload amount

Preload type	Item	Symbol	Preload amount (N)	Application
Preload type	Standard	(No symbol)	0 <sup>(1)</sup>	• Smooth and precise motion
	Light preload	T <sub>1</sub>	0.02C <sub>0</sub>	• Minimum vibration • Load is evenly balanced. • Smooth and precise motion
	Medium preload <sup>(2)</sup>	T <sub>2</sub>	0.05C <sub>0</sub>	• Medium vibration • Medium overhung load
Preload type	Heavy preload <sup>(2)</sup>	T <sub>3</sub>	0.08C <sub>0</sub>	• Vibration and/or shocks • Large overhung load • Heavy cutting

Note<sup>(1)</sup> : Zero or minimal amount of preload  
<sup>(2)</sup> : Not applicable to size 10 (LRXD10...SL).  
 Remark : C<sub>0</sub> means the basic static load rating.

Table 4 Preload type

Model number	Preload type			
	Standard (No symbol)	Light preload (T <sub>1</sub> )	Medium preload (T <sub>2</sub> )	Heavy preload (T <sub>3</sub> )
LRXD 10...SL	○	○	-	-
LRX 12	☆	☆	○	○
LRX 15	☆	☆	☆	○
LRX 20	☆	☆	☆	○
LRX 25	○	☆	☆	○
LRX 30	○	☆	☆	○
LRX 35	○	○	☆	☆
LRX 45	○	○	☆	☆
LRX 55	○	○	☆	☆
LRX 65	○	○	☆	☆
LRX 85	○	○	○	○
LRXG 100	○	○	○	○

Remark 1 : The mark ☆ indicates that interchangeable specification products are available.  
 2 : The above table shows representative model numbers and is also applicable to all models in the same size.

Linear Roller Way Super X optional specifications for are shown in Table 5.

When a optional specification is required, add the applicable supplemental code to the end of the identification number.

When a combination of multiple optional specifications is required (See Table 6), arrange their supplemental codes in alphabetical order.

Table 5 Optional specifications

Optional specification	Supplemental code	Interchangeable specification			Non-interchangeable specification
		Slide unit	Track rail	Assembled set	
Butt-jointing track rails	/A	-	-	-	○
Opposite reference surfaces arrangement	/D	-	-	○	○
Specified rail mounting hole positions	/E	-	○	○	○
Caps for rail mounting holes	/F	-	○	○	○ <sup>(2)</sup>
Changed pitch of slide unit middle mounting holes	/GE	○ <sup>(1)</sup> <sup>(3)</sup>	-	○ <sup>(1)</sup> <sup>(3)</sup>	○ <sup>(1)</sup> <sup>(2)</sup> <sup>(3)</sup> <sup>(4)</sup>
Half pitch of track rail mounting holes	/HP	-	○	○	○ <sup>(2)</sup> <sup>(5)</sup>
Inspection sheet	/I	-	-	-	○
Female threads for bellows	/JO	○ <sup>(3)</sup> <sup>(6)</sup>	○ <sup>(3)</sup> <sup>(6)</sup>	○ <sup>(3)</sup> <sup>(6)</sup>	○ <sup>(2)</sup> <sup>(3)</sup> <sup>(5)</sup>
Black chrome surface treatment	/LO	-	-	○	○ <sup>(2)</sup> <sup>(4)</sup> <sup>(5)</sup>
Fluorine black chrome surface treatment	/LFO	-	-	○	○ <sup>(2)</sup> <sup>(4)</sup> <sup>(5)</sup>
Without track rail mounting bolts	/MN	-	○	○	○
No end seal	/N	○ <sup>(7)</sup>	-	○ <sup>(7)</sup>	○ <sup>(7)</sup>
Rail cover plate for track rail	/PS	-	-	-	○ <sup>(8)</sup>
Capillary plates	/Q	○	-	○	○ <sup>(5)</sup>
Butt-jointing interchangeable track rail	/T	-	○	○	-
Double end seals	/VO	○	-	○	○ <sup>(2)</sup>
Matched sets to be used as an assembled group	/WO	-	-	-	○ <sup>(4)</sup> <sup>(5)</sup>
Specified grease	/YO	-	-	○	○
Scrapers	/ZO	○	-	○	○ <sup>(2)</sup>

Note<sup>(1)</sup> : Applicable to LRX, LRXG, LRXH20 and LRXHG20.  
<sup>(2)</sup> : Not applicable to size 10 models. (LRXD10...SL)  
<sup>(3)</sup> : Not applicable to size 12 models.  
<sup>(4)</sup> : Not applicable to size 85 models.  
<sup>(5)</sup> : Not applicable to size 100 models.  
<sup>(6)</sup> : Not applicable to stainless steel models.  
<sup>(7)</sup> : Not applicable to size 55, 65, 85 and 100 models.  
<sup>(8)</sup> : Applicable to size 35, 45 and 55 models.

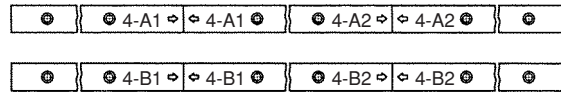
Table 6 Combination of supplemental codes

D	○																			
E	-	-																		
F	○	☆	☆																	
GE	○	☆	☆	☆																
HP	-	☆	-	☆	☆															
I	○	○	○	○	○	○														
J	○	☆	☆	☆	☆	☆	-	○												
L	○	☆	☆	☆	☆	☆	☆	○	☆											
LF	○	☆	☆	☆	☆	☆	☆	○	☆	-										
MN	○	☆	☆	☆	☆	☆	☆	○	☆	☆	☆									
N	○	☆	☆	-	☆	☆	○	-	☆	☆	☆	☆								
PS	-	○	○	-	○	○	○	○	-	-	○	-								
Q	○	☆	☆	☆	☆	☆	☆	○	-	☆	☆	☆	☆	○						
T	-	☆	☆	☆	☆	☆	-	-	☆	☆	☆	☆	-	☆						
V	○	☆	☆	☆	☆	☆	○	★	☆	☆	☆	-	○	-	☆					
W	○	○	-	○	○	○	○	○	○	○	○	○	○	○	-	○				
Y	○	☆	☆	☆	☆	☆	☆	○	☆	☆	☆	☆	☆	○	-	☆	☆	○		
Z	○	☆	☆	☆	☆	☆	○	★	☆	☆	☆	-	-	-	☆	★	○	☆		
A		D	E	F	GE	HP	I	J	L	LF	MN	N	PS	Q	T	V	W	Y		

Remark 1 : The mark ○ indicates that the combination can be made.  
 2 : The mark ☆ indicates that interchangeable specification products are available.  
 3 : The mark - indicates that this combination cannot be made.  
 4 : If the ★ marks are required, please consult IKO.  
 5 : If a combination of special specifications is required, indicate the supplemental codes in alphabetical order.

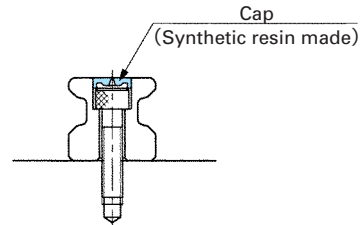


**Butt-jointing track rails /A**



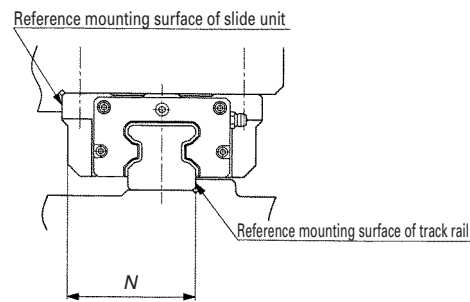
When the required length of non-interchangeable specification track rail exceeds the maximum length indicated in Table 16, two or more track rails can be used by butt-jointing in the direction of linear motion. For the length and the number of butt-jointing track rails, consult IKO for further information.

**With caps for rail mounting holes /F**



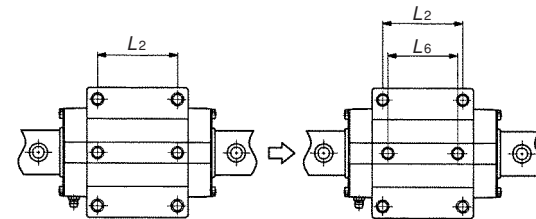
Specially prepared caps for track rail mounting holes are appended. These caps cover the track rail mounting holes to improve the sealing performance in the linear motion direction. Aluminum caps are also available. Consult IKO for further information.

**Opposite reference surfaces arrangement /D**



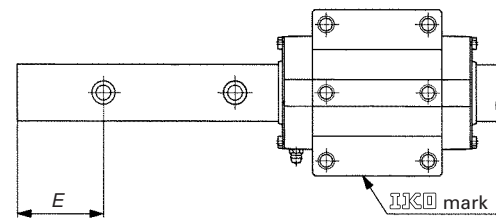
The reference mounting surface of track rail is made opposite to the standard side. The accuracy of dimension  $N$  including parallelism in operation is the same as that of standard specification.

**Changed pitch of slide unit middle mounting holes /GE**



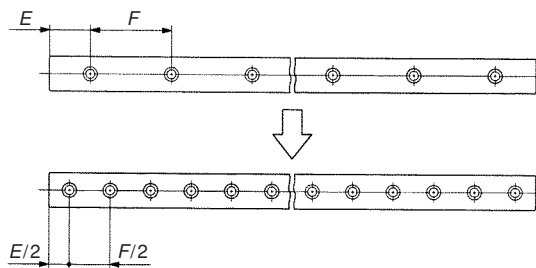
The pitch length between the two middle mounting holes of slide unit is changed. For this dimension, see Table 7.

**Specified rail mounting hole positions /E**



The position of the first mounting hole from the left end of the track rail (dimension  $E$ ) can be specified. When ordering, add the dimension (in mm) after "/E". Dimension  $E$  can be specified in a limited range. Consult IKO for further information.

**Half pitch of track rail mounting holes /HP**

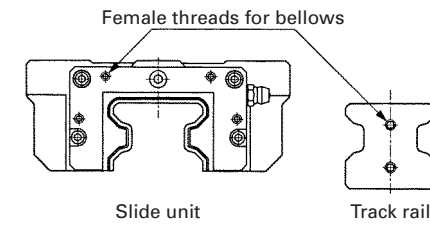


The pitch of the track rail mounting holes is changed to 1/2 of the dimension  $F$  of standard type. Track rail mounting bolts are appended in the same number as that of mounting holes.

**Inspection sheet /I**

The inspection sheet recording dimensions  $H$  and  $N$ , dimensional variations of  $H$  and  $N$ , and parallelism in operation of the slide unit is attached to each set.

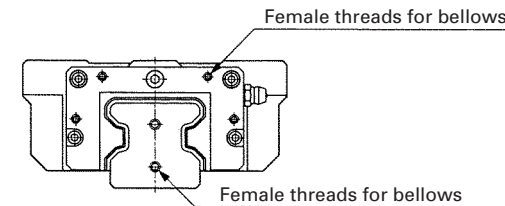
**With female threads for bellows (for single slide unit or track rail) /J /JR /JL**



Female threads for mounting bellows are provided on the interchangeable slide unit or the interchangeable track rail. For details of related dimensions, see Table 9.1 and 9.2.

- ①/J Female threads are provided at both ends of the slide unit or the track rail.
- ②/JR Female threads are provided at the right end of the slide unit in sight of IKO mark.
- ③/JL Female threads are provided at the left end of the slide unit in sight of IKO mark.

**With female threads for bellows (for assembled set) /J /JJ /JR /JS /JJS**



For an assembled set of interchangeable or non-interchangeable specification, female threads for mounting bellows are provided on the slide unit and the track rail. For details of related dimensions, see Table 9.1 and 9.2.

- ①/J Female threads are provided at both ends of the track rail, and at the slide unit ends which are the closest to the track rail ends. (In case only one slide unit is assembled, female threads are provided at both ends.)
- ②/JJ Female threads are provided at both ends of the track rail.
- ③/JR Female threads are provided at the slide unit ends which are the closest to the track rail ends. (In case only one slide unit is assembled, female threads are provided at both ends.)
- ④/JS Female threads are provided at all ends of all slide units. (Applicable, when the number of slide units is two or more. In case only one slide unit is assembled, indicate "JS".)
- ⑤/JJS Female threads are provided at all ends of all slide units. (Applicable, when the number of slide units is two or more. In case only one slide unit is assembled, indicate "JJS".)

**Black chrome surface treatment /LC /LR /LCR**

A black permeable chrome film is formed to improve corrosion resistance. The surface is then coated with acrylic resin.

- ①/LC Treatment is applied to the casing.
- ②/LR Treatment is applied to the track rail.
- ③/LCR Treatment is applied to the casing and the track rail.

**Fluorine black chrome surface treatment /LFC /LFR /LFCR**

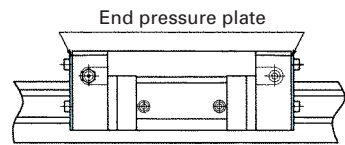
After forming a black permeable chrome film, the surface is coated with fluorine resin for further improvement in corrosion resistance. This treatment is also effective in preventing the adhesion of foreign substances on the surface.

- ①/LFC Treatment is applied to the casing.
- ②/LFR Treatment is applied to the track rail.
- ③/LFCR Treatment is applied to the casing and the track rail.

**Without track rail mounting bolts /MN**

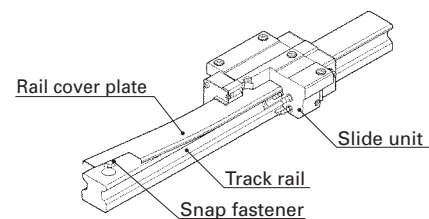
Bolts for track rail mounting are not appended.

**No end seal /N**



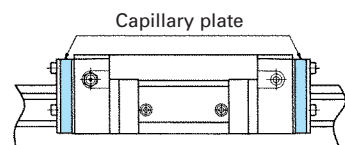
End seals at the both ends of slide unit are replaced by end pressure plates (not in contact with the track rail) to reduce frictional resistance. The under seals are not assembled. This specification is not effective for dust protection.

**Rail cover plate /PS**



The rail cover plate is delivered as assembled on the track rail. After mounting the track rail, the top surface of track rail is covered with a U-shaped thin stainless steel plate for further improvement in sealing performance. Standard end seals of the slide unit must be replaced with the special end seals. When mounting the cover plate, refer to the attached instruction manual for rail cover plate.

**Capillary plates /Q**



Capillary plates are assembled between casing and the end seals of the slide unit. They are impregnated with lubricant so that re-lubrication interval can be made longer. For the total length of the slide unit with capillary plates, see Table 8.

**Butt-jointing interchangeable track rail (for interchangeable specification) /T**

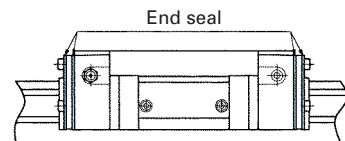
A special interchangeable track rail of which both ends are finished for butt-jointing is provided. Use the track rails having the same interchangeable code for butt-jointing. For the non-interchangeable specification, indicate "butt-jointing track rail "/A".

**With double end seals (for single slide unit) /V /VR /VL**

Double end seals are provided on the interchangeable slide unit for more effective dust protection. For the total length of the side unit with double end seals, see Table 8.

- ① /V Double end seals are provided at the both ends of the slide unit.
- ② /VR Double end seals are provided at the right end of the slide unit in sight of mark.
- ③ /VL Double end seals are provided at the left end of the slide unit in sight of mark.

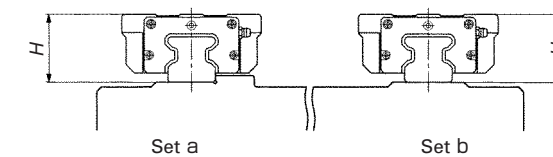
**With double end seals (for assembled set) /V /VV**



Double end seals are provided on the slide unit of assembled set of interchangeable specification or non-interchangeable specification for more effective dust protection. For the total length of the slide unit with double end seals, see Table 8.

- ① /V Double end seals are provided at the slide unit ends which are the closest to the ends of the track rail. (In case only one slide unit is assembled, double end seals are provided at both ends.)
- ② /VV Double end seals are provided at all ends of all slide units. (Applicable, when the number of slide units is two or more. In case only one slide unit is assembled, indicate "V".)

**Matched sets to be used as an assembled group /W**



For two or more sets of Linear Roller Way Super X used on the same plane, the dimensional variation of *H* of Linear Roller Way Super X is kept within the specified range. The dimensional variation of dimension *H* in matched sets is the same as that of a single set. When ordering, indicate the number of sets, which is always represented by the number of track rails, after "W".

**Specified grease /YCG /YCL /YAF /YBR /YNG**

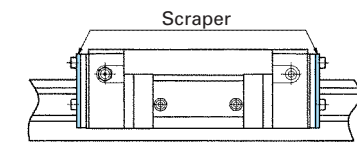
- The type of pre-packed grease in the slide unit can be changed by a supplemental code.
- ① /YCG Low Dust Generation Grease for Clean Environment CG2 is pre-packed.
  - ② /YCL Low Dust Generation Grease for Clean Environment CGL is pre-packed.
  - ③ /YAF Anti-Fretting Corrosion Grease is pre-packed.
  - ④ /YBR MOLYCOTE BR2 Plus Grease (Dow Corning) is pre-packed.
  - ⑤ /YNG No grease is pre-packed.

**With scrapers (for single slide unit) /Z /ZR /ZL**

Metal scrapers are provided on the slide unit of interchangeable specification. The scraper (non-contact type) is used to effectively remove large particles of dust or foreign matters adhering to the track rail. For the total length of the slide unit with scrapers, see Table 8.

- ① /Z Scrapers are provided at both ends of the slide unit.
- ② /ZR A scraper is provided at the right end of the slide unit in sight of mark.
- ③ /ZL A scraper is provided at the left end of the slide unit in sight of mark.

**With scrapers (for assembled set) /Z /ZZ**



Metal scrapers are provided on the slide units of assembled set of interchangeable specification or non-interchangeable specification. The scraper (non-contact type) is used to effectively remove large particles of dust or foreign matters adhering to the track rail. For the total length of the slide unit with scrapers, see Table 8.

- ① /Z Scrapers are provided at the slide unit ends which are the closest to the ends of the track rail. (In case only one slide unit is assembled, scrapers are provided at both ends.)
- ② /ZZ Scrapers are provided at all ends of all slide units. (Applicable, when the number of slide units is two or more. In case only one slide unit is assembled, indicate "Z".)

**Table 7 Pitch of slide unit middle mounting holes (Supplemental code /GE)**

Model number	L <sub>2</sub>	L <sub>6</sub>
LRX 15, LRXG 15	30	26
LRX 20, LRXG 20 <sup>(1)</sup>	40	35
LRX 25, LRXG 25	45	40
LRX 30, LRXG 30	52	44
LRX 35, LRXG 35	62	52
LRX 45, LRXG 45	80	60
LRX 55, LRXG 55	95	70
LRX 65, LRXG 65	110	82
LRXG 100	200	150

unit : mm

Note<sup>(1)</sup> : Also applicable to LRXH 20 and LRXHG 20.



**Table 8 Slide unit with capillary plates (Supplemental code /Q), with double end seals (Supplemental code /V), and with scrapers (Supplemental code /Z)**

Model number	With capillary plates (✓Q)		With double end seals <sup>(1)</sup> (✓V)		With scrapers <sup>(1)</sup> (✓Z)		Model number	With capillary plates (✓Q)		With double end seals <sup>(1)</sup> (✓V)		With scrapers <sup>(1)</sup> (✓Z)	
	L <sub>1</sub>	L <sub>4</sub>	L <sub>1</sub>	L <sub>4</sub>	L <sub>1</sub>	L <sub>4</sub>		L <sub>1</sub>	L <sub>1</sub>	L <sub>1</sub>	L <sub>1</sub>		
LRXD 10...SL	43.5	—	—	—	—	—	LRXC 35	103	101	103			
LRXC 12	47	50	44	46	45	48	LRX 35	135	133	135			
LRX 12	57	60	54	57	56	58	LRXG 35	163	161	163			
LRXG 12	68	71	65	67	66	69	LRXC 45	127	127	129			
LRXC 15	63	64	58	60	60	61	LRX 45	167	167	169			
LRX 15	79	80	74	76	76	77	LRXG 45	207	207	209			
LRXG 15	95	96	90	92	92	93	LRXC 55	149	149	151			
LRXC 20	76	85	73	83	75	84	LRX 55	197	197	199			
LRX 20	96	105	93	103	95	104	LRXG 55	251	251	253			
LRXG 20	116	125	113	123	115	124	LRXC 65	198	193	194			
LRXC 25	85	94	83	92	85	93	LRX 65	262	257	258			
LRX 25	109	118	107	116	109	117	LRXG 65	326	321	322			
LRXG 25	124	133	122	131	124	132	LRX 85	341	338	339			
LRXC 30	96	108	93	106	96	107	LRXG 85	413	410	411			
LRX 30	124	136	121	134	124	135	LRXC 100	—	376	378			
LRXG 30	145	157	142	155	145	156							

Note<sup>(1)</sup> : The values for a slide unit with double end seals or scrapers at both ends are shown.  
 Remark : The above table shows representative model numbers and is also applicable to all models in the same size.

**Table 9.1 Female threads for bellows (Supplemental code /J)**

Model number	Slide unit						Track rail		
	a <sub>1</sub>	b <sub>1</sub>	b <sub>2</sub>	M <sub>1</sub> × depth	L <sub>1</sub> <sup>(3)</sup>	H <sub>3</sub>	a <sub>3</sub>	a <sub>4</sub>	M <sub>2</sub> × depth
LRXC 15	10.5	10.5	26	M3 × 6	67	1	4	8	M3 × 6
LRX 15					83				
LRXG 15					99				
LRXDC 15	14.5	4	26	M3 × 6	67	5	4	8	M3 × 6
LRXD 15					83				
LRXDG 15					99				
LRXSC 15	10.5	4	26	M3 × 6	67	1	4	8	M3 × 6
LRXS 15					83				
LRXSG 15					99				
LRXC 20 <sup>(2)</sup>	12	13.5	36	M3 × 6	81	2	5	10	M4 × 8
LRX 20 <sup>(2)</sup>					101				
LRXG 20 <sup>(2)</sup>					121				
LRXDC 20	16	4	36	M3 × 6	81	6	5	10	M4 × 8
LRXD 20					101				
LRXDG 20					121				
LRXSC 20	12	4	36	M3 × 6	81	2	5	10	M4 × 8
LRXS 20					101				
LRXSG 20					121				
LRXC 25	15.5	15	40	M3 × 6	89	4	6	12	M4 × 8
LRX 25					113				
LRXG 25					128				
LRXDC 25	19.5	4	40	M3 × 6	89	8	6	12	M4 × 8
LRXD 25					113				
LRXDG 25					128				
LRXSC 25	15.5	4	40	M3 × 6	89	4	6	12	M4 × 8
LRXS 25					113				
LRXSG 25					128				
LRXC 30	18.5	20	50	M3 × 6	100	4.8	7	14	M4 × 8
LRX 30					128				
LRXG 30					149				
LRXDC 30	21.5	5	50	M3 × 6	100	7.8	7	14	M4 × 8
LRXD 30					128				
LRXDG 30					149				
LRXSC 30	18.5	5	50	M3 × 6	100	4.8	7	14	M4 × 8
LRXS 30					128				
LRXSG 30					149				

Note<sup>(1)</sup> : The specification and mounting position of grease nipple are different from those of the standard specification product. The grease nipple of the size 30 models is A-M4. For grease nipple specifications, see Table 12.

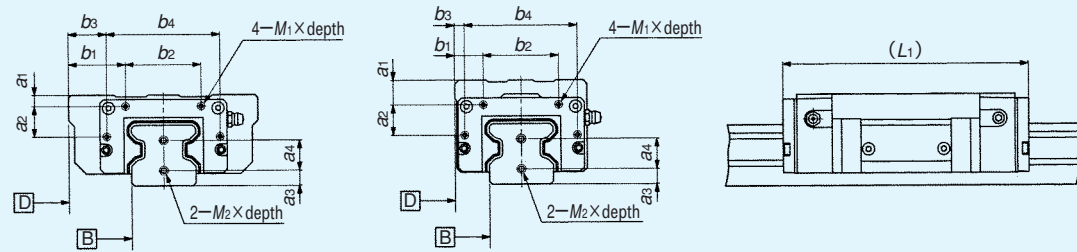
<sup>(2)</sup> : Also applicable to LRXHC20, LRXH20 and LRXHG20.

<sup>(3)</sup> : The values for a slide unit with female threads for bellows at both ends are shown.

Remark : For the size 15 and 20 models of flange type and compact block type, the dimension "a5" is higher than the dimension H of the assembly. For details, consult IKO for further information.

Table 9.2 Female threads for bellows (Supplemental code /J)

Size 35, 45, 55, 65, 85



unit : mm

Model number	Slide unit								Track rail		
	a <sub>1</sub>	a <sub>2</sub>	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	M <sub>1</sub> × depth	L <sub>1</sub> (1)	a <sub>3</sub>	a <sub>4</sub>	M <sub>2</sub> × depth
LRXC 35	6	16	30	40	20	60	M3 × 6	99	8	16	M4 × 8
LRX 35								131			
LRXG 35								159			
LRXDC 35								99			
LRXD 35								131			
LRXDG 35	159										
LRXC 45	7	21	35	50	23	74	M4 × 8	123	10	19	M5 × 10
LRX 45								163			
LRXG 45								203			
LRXDC 45								123			
LRXD 45								163			
LRXDG 45	203										
LRXC 55	7	27	40	60	26	88	M4 × 8	145	10	24	M5 × 10
LRX 55								193			
LRXG 55								247			
LRXDC 55								145			
LRXD 55								193			
LRXDG 55	247										
LRXC 65	8.7	37	47.5	75	31	108	M5 × 10	192	14	28	M6 × 12
LRX 65								256			
LRXG 65								320			
LRXDC 65								192			
LRXD 65								256			
LRXDG 65	320										
LRX 85	15	45	62.5	90	37.5	140	M6 × 10	334	14.5	38	M6 × 12
LRXG 85								406			

Note(1) : The values for the slide units with female threads for bellows at the both ends.

## Load Rating and Life

### Basic dynamic load rating C

Conforming to ISO/FDIS 14728-1

The basic dynamic load rating is defined as the constant load both in direction and magnitude under which a group of identical Linear Roller Ways Super X are individually operated and 90% of those in the group can travel 50 x 10<sup>3</sup> meters free from material damage due to rolling contact fatigue.

The dynamic load ratings of Linear Roller Way Super X are designed for equal load capacity in downward, upward and lateral directions.

### Basic static load rating C<sub>0</sub>

Conforming to ISO/FDIS 14728-2

The basic static load rating is defined as the static load that gives a prescribed constant contact stress at the center of the contact area between the rolling element and raceway receiving the maximum load. It is the allowable limit load that permits normal rolling motion. Generally, the basic static load rating is used in combination with the static safety factor.

The static load ratings of Linear Roller Way Super X are designed for equal load capacity in downward, upward and lateral directions.

### Static moment rating T<sub>0</sub>, T<sub>x</sub>, T<sub>y</sub>

The static moment rating is defined as the static moment load that gives a prescribed constant contact stress at the center of the contact area between the rolling element and raceway receiving the maximum load when a moment (See Fig. 3.) is loaded. It is the allowable limit moment that permits normal rolling motion. Generally, the static moment rating is used in combination with the static safety factor.

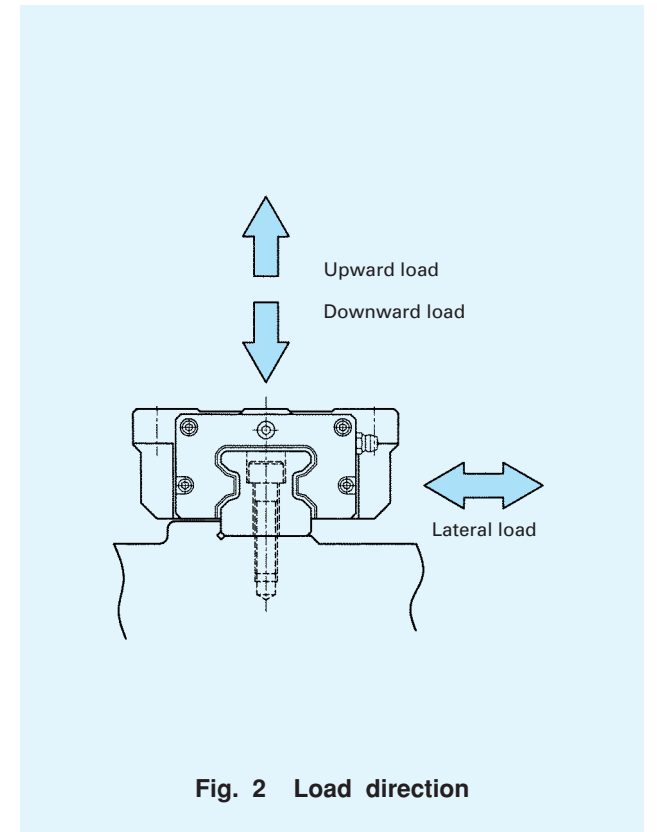


Fig. 2 Load direction

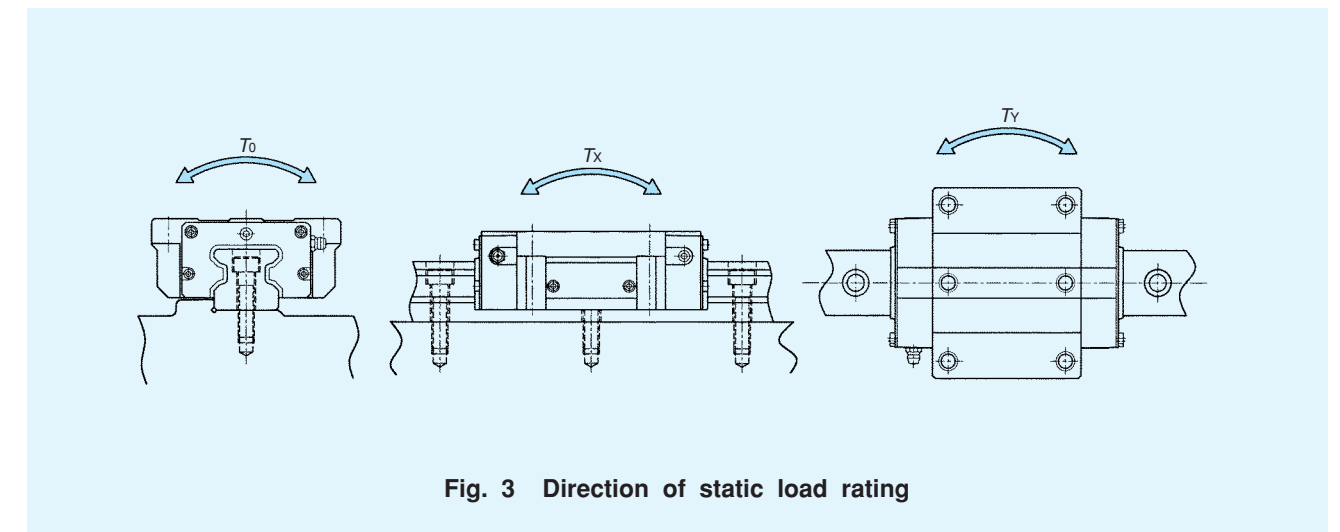


Fig. 3 Direction of static load rating



## Lubrication and Dust Protection

### Life

The rating life of Linear Roller Way Super X is obtained from the following formula.

$$L = 50 \left( \frac{C}{P} \right)^{10/3} \dots\dots\dots(1)$$

where,  $L$  : Rating life,  $10^3m$

$C$  : Basic dynamic load rating, N

$P$  : Dynamic equivalent load (or Applied load), N

If the stroke length and the number of strokes per minute are known, the life in hours can be obtained from the following formula.

$$L_h = \frac{10^6 L}{2S n_1 \times 60} \dots\dots\dots(2)$$

where,  $L_h$  : Rating life in hours, h

$S$  : Stroke length, mm

$n_1$  : Number of strokes per minute, cpm

### Static safety factor

The static safety factor of Linear Roller Way Super X is given in the following formula.

$$f_s = \frac{C_0}{P_0} \dots\dots\dots(3)$$

where,  $f_s$  : Static safety factor

$C_0$  : Basic static load rating, N

$P_0$  : Static equivalent load (or Applied load), N

**Table 10 Static safety factor**

Operating conditions	$f_s$
Operation with vibration and/or shocks	4 ~ 6
High operating performance	3 ~ 5
Normal operation	2.5~3

### Load factor

Due to vibration and/or shocks during machine operation, the actual load on each rolling guide becomes greater in many cases than the theoretically calculated load. The applied load is generally calculated by multiplying the theoretically calculated load by the load factor indicated in Table 11.

**Table 11 Load factor**

Operating conditions	$f_w$
Smooth operation free from vibration and/or shocks	1 ~ 1.2
Normal operation	1.2~1.5
Operation with vibration and/or shocks	1.5~3

A high quality lithium-soap base grease containing extreme-pressure additives (ALVANIA EP Grease 2 (SHELL)) is pre-packed in Linear Roller Way Super X. However, the quality of any grease will gradually deteriorate as operating time passes. Therefore, periodic re-lubrication is necessary. The re-lubrication interval varies depending on the operating conditions of the rolling guides. A six month interval is generally recommended. If the machine operation consists of reciprocating motions with many cycles and long strokes, re-lubrication every three months is recommended. Re-lubrication is performed from a grease nipple provided on the slide unit.

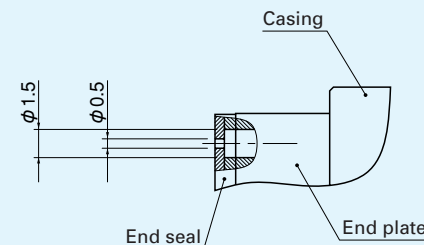
Re-lubrication interval can be extended by using the special specification Capillary Plate (supplemental code "/Q"), by which re-lubrication and other maintenance works can be reduced.

Linear Roller Way Super X is dust-protected with special rubber seals on slide unit. But, if large amounts of fine contaminants are present, or if large particles of foreign matters such as dust or chips may fall on the track rail, it is recommended to provide protective covers such as bellows or telescopic shields for the entire linear motion mechanism.

Bellows to match the dimensions of Linear Roller Way Super X are optionally available from IJKO. They are easy to mount and highly effective for dust protection. If required, consult IJKO.

## Oil hole

Size 10 of Linear Roller Way Super X (LRXD10...SL) is provided with oil holes as shown in Fig.4. For grease replacement, use a syringe type dispenser. The specially prepared miniature greaser is also available. Please consult IJKO if required.



**Fig. 4 Size of oil hole in LRXD10...SL**

## Grease Nipple

From size 12 to 100 of Linear Roller Way Super X, grease nipples shown in Table 12 are assembled to each slide unit.

**Table 12 Grease nipple**

Model number	Grease nipple	
	Type	Shape and dimension
LRX 12	A-M3	
LRX 15	A-M4	
LRX 20 LRX 25	B-M4	
LRX 30	B-M6	
LRX 35		JIS A-M6F
LRX 45 LRX 55 LRX 65 LRX 85		JIS A-PT1/8
LRXG 100		JIS A-PT1/4

Remark : The above table shows representative model numbers and is also applicable to all models in the same size.

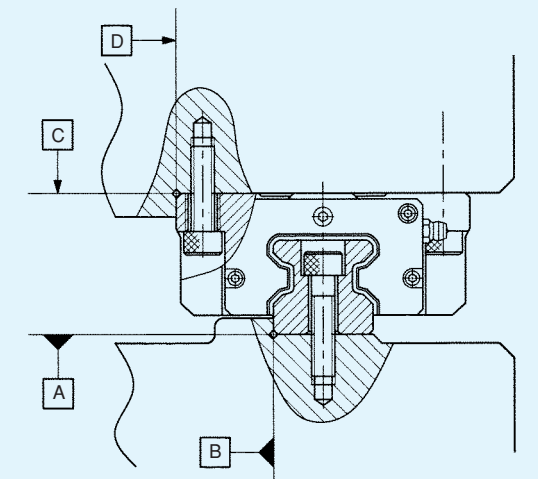
## Precautions for Use

### Mounting surface, reference mounting surface, and general mounting structure

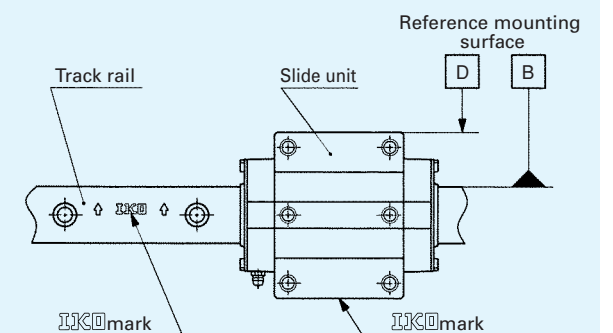
To mount Linear Roller Way Super X, correctly fit the reference mounting surfaces B and D of Linear Roller Way Super X to the reference mounting surfaces of the table and the bed, and then fix them tightly. (See Fig. 5.)

The reference mounting surfaces B and D and mounting surfaces A and C of Linear Roller Way Super X are accurately finished by grinding. Stable and high accuracy linear motion can be obtained by finishing the mating mounting surfaces of machines or equipment with high accuracy and correctly mounting the guide on these surfaces.

The slide unit reference mounting surface is always the side surface opposite to the IJKO mark. The track rail reference mounting surface is identified by locating the IJKO mark on the top surface of the track rail. The track rail reference mounting surface is the side surface above the IJKO mark (in the direction of the arrow). (See Fig. 6.)



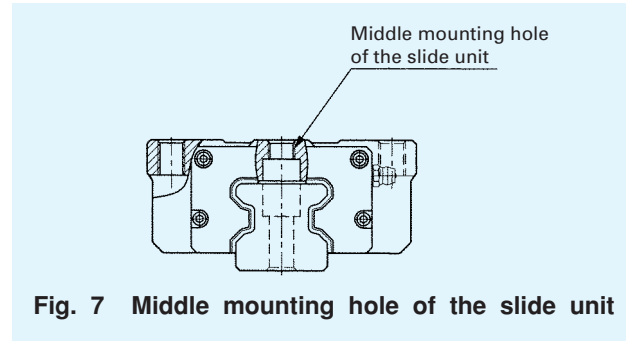
**Fig. 5 Reference mounting surfaces and general mounting structure**



**Fig. 6 Reference mounting surfaces**

**②Mounting of the slide unit**

Except the size 10 and 12 models, the slide unit is provided with one or two mounting thread holes in the middle of width (See Fig. 7.) so that an applied load can be received with good load balance. When designing machines or equipment, ensure that these middle mounting holes of the slide unit can be securely tightened to obtain maximum performance of the guide. It is recommended to secure the screwing depths shown in Table 13 for the slide units of compact block type.



**Fig. 7 Middle mounting hole of the slide unit**

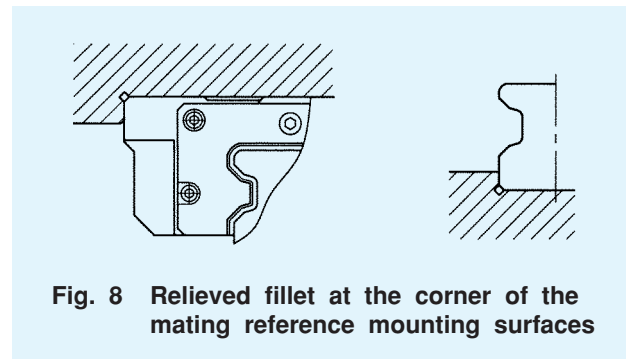
**Table 13 Screwing depth of slide unit mounting holes for compact block type**

Model number	Recommended minimum depth mm
LRXS 15	4.5
LRXS 20	5.5
LRXS 25	7
LRXS 30	9

Remark : The above table shows representative model numbers and is also applicable to all models in the same size.

**③Corner radius and shoulder height of reference mounting surfaces**

It is recommended to make a relieved fillet at the corner of the mating reference mounting surfaces as shown in Fig. 8. However, in some series, corner radius  $R$  shown in Table 14 can also be used. Table 14 shows recommended shoulder heights and corner radius of the mating reference mounting surfaces.



**Fig. 8 Relieved fillet at the corner of the mating reference mounting surfaces**

**Table 14 Shoulder heights and corner radius of the mating reference mounting surfaces**

Model number	Slide unit Shoulder height $h_1$	Track rail Shoulder height $h_2$	Corner radius $R$ (max.)
LRXD 10...SL	4	1	0.3
LRX 12	4	2	0.5
LRX 15	4	3	0.5
LRX 20	5	4	0.5
LRX 25	6	5	1
LRX 30	8	5.5	1
LRX 35	8	5.5	1
LRX 45	8	7	1.5
LRX 55	10	8	1.5
LRX 65	10	10	1.5
LRX 85	14	14	2.5
LRXG 100	14	13	2.5

Remark : The above table shows representative model numbers and is also applicable to all models in the same size.

**④Multiple slide units mounted in close distance**

When using multiple slide units in close distance to each other, actual load may be greater than the calculated load depending on the accuracy of the mounting surfaces and the reference mounting surfaces of the machine. It is suggested in such cases to assume a greater load than the calculated load.

**⑤Operating temperature**

The maximum operating temperature is 120°C and a continuous operation is possible at temperatures up to 100°C. If the operation temperature may exceed 100°C, consult IKO.

For the "with capillary plates" (supplemental code "/Q") of special specification, operate Linear Roller Way Super X below 80°C.

**Mounting**

**①When mounting multiple sets at the same time**

In case of interchangeable specification Linear Roller Way Super X, assemble a slide unit and a track rail with the same interchangeable code ("S2").

In case of non-interchangeable specification Linear Roller Way Super X, use an assembly of slide unit and track rail as delivered without changing the combination. Special specification products of matched sets (supplemental code "/W") are delivered as a group in which dimensional variations are specially controlled. Mount them without mixing with the sets of another group.

**②Assembling slide unit and track rail**

When assembling a slide unit onto a track rail, correctly fit the grooves of the slide unit to the grooves of the track rail and move the slide unit gently in parallel direction. Rough handling will result in seal damage or dropping of cylindrical rollers.

The interchangeable specification slide unit is provided with a dummy rail. The size 10, 12, 15, 20, 25 and 30 models of non-interchangeable specification are appended with a dummy rail. This dummy rail should be used for assembly.

**③Accuracy of mating mounting surfaces**

A load greater than the calculated load may act on Linear Roller Way Super X, depending on the accuracy of the mating mounting surfaces and assembling accuracy. This will eventually give an adverse effect on the service life of Linear Roller Way Super X. Therefore, the accuracy must be carefully examined.

The accuracy of the mating mounting surfaces for track rail, slide unit and the assembling accuracy must be determined considering the operating conditions, required running accuracy and rigidity, etc. Also, the mounting structure must be examined to ensure accuracy and performance for reliable use of a linear motion rolling guide.

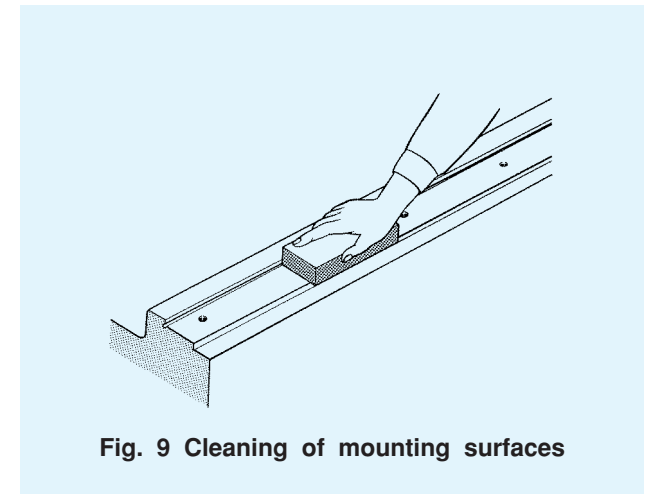
When multiple sets are mounted, the parallelism between the two mounting surfaces of machines must be prepared, in general, as shown in Table 15.

**Table 15 Parallelism between two mounting surfaces**

Accuracy class	unit : $\mu\text{m}$			
	High (H)	Precision (P)	Super precision (SP)	Ultra precision (UP)
Parallelism	30	20	10	6

**④Cleaning of mounting surfaces**

Before assembling Linear Roller Way Super X, remove burrs and blemishes from the reference mounting surfaces and mounting surfaces of the machine using an oil-stone, etc., and wipe off rust prevention oil and dirt with clean cloth.



**Fig. 9 Cleaning of mounting surfaces**

**⑤Tightening torque of mounting bolts**

The standard torque values for Linear Roller Way Super X mounting bolts are shown in Table 16. When machines or equipment are subjected to severe vibration, shock, large fluctuating load or moment load, the bolts should be tightened with a torque 1.2 to 1.5 times higher than the standard torque values shown.

When the mating member material is cast iron or aluminum, tightening torque should be lowered in accordance with the strength characteristics of the material.

**Table 16 Tightening torque of mounting bolts**

Bolt size	Tightening torque N·m	
	Carbon steel bolt (Strength division 12.9)	Stainless steel bolt (Property division A2-70)
M 2.6×0.5	—	0.70
M 3 ×0.5	1.7	1.1
M 4 ×0.7	4.0	2.5
M 5 ×0.8	7.9	5.0
M 6 ×1	13.3	8.5
M 8 ×1.25	32.0	20.4
M10 ×1.5	62.7	—
M12 ×1.75	108	—
M14 ×2	172	—
M16 ×2	263	—
M20 ×2.5	512	—
M24 ×3	882	—
M30 ×3.5	1 750	—

Remark : Tightening torque for slide unit center mounting holes on flange type (LRXC, LRX, LRXG) size 15, 20, 25, 30, and 35, are recommended to be tightened with a torque 70 to 80% values of Table 16.



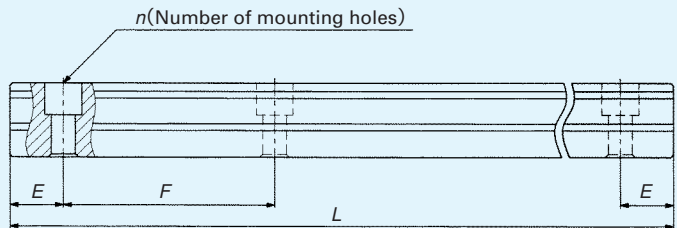
# Track Rail Length

Standard and maximum lengths of track rails of Linear Roller Way Super X are shown in Table 17.1 and 17.2. Track rails in any length are also available. Simply indicate the necessary track rail length in mm in the identification number.

For non-interchangeable track rails longer than the maximum length shown in Table 17.1 and 17.2, butt-jointing track rails are available upon request. In this case, indicate "A" in the identification number.

*E* dimensions at the both ends are the same unless otherwise specified. To change these dimensions, specify the specified rail mounting hole positions (supplemental code "/E") of optional specification.

**Table 17.1 Standard and maximum lengths of high carbon steel track rails**



unit : mm

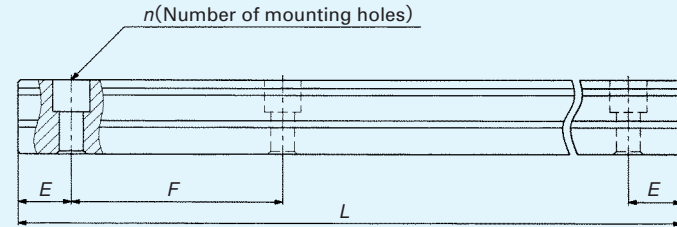
Model number	LRX 12	LRX 15	LRX 20	LRX 25	LRX 30	LRX 35
Standard length <i>L</i> ( <i>n</i> )	80( 2) 160( 4) 240( 6) 320( 8) 400(10) 480(12) 560(14) 640(16) 720(18)	180( 3) 240( 4) 360( 6) 480( 8) 660(11)	240( 4) 480( 8) 660(11) 840(14) 1 020(17) 1 200(20) 1 500(25)	240( 4) 480( 8) 660(11) 840(14) 1 020(17) 1 200(20) 1 500(25)	480( 6) 640( 8) 800(10) 1 040(13) 1 200(15) 1 520(19)	480( 6) 640( 8) 800(10) 1 040(13) 1 200(15) 1 520(19)
Pitch of mounting holes <i>F</i>	40	60	60	60	80	80
<i>E</i>	20	30	30	30	40	40
Standard range of <i>E</i> ( <sup>1</sup> )	incl. 5.5 under 25.5	incl. 7 under 37	incl. 8 under 38	incl. 9 under 39	incl. 10 under 50	incl. 10 under 50
Maximum length( <sup>2</sup> )	1 480	1 500 (1 980)	1 980 (3 000)	3 000	2 960 (4 000)	2 960 (4 000)

Model number	LRX 45	LRX 55	LRX 65	LRX 85	LRXG 100
Standard length <i>L</i> ( <i>n</i> )	840( 8) 1 050(10) 1 260(12) 1 470(14) 1 995(19)	840( 7) 1 200(10) 1 560(13) 1 920(16) 3 000(25)	1 500(10) 1 950(13) 3 000(20)	1 620( 9) 1 980(11) 2 340(13) 2 700(15)	1 500(10) 1 950(13) 3 000(20)
Pitch of mounting holes <i>F</i>	105	120	150	180	150
<i>E</i>	52.5	60	75	90	75
Standard range of <i>E</i> ( <sup>1</sup> )	incl. 12.5 under 65	incl. 15 under 75	incl. 17 under 92	incl. 23 under 113	incl. 29 under 104
Maximum length( <sup>2</sup> )	2 940 (3 990)	3 000 (3 960)	3 000 (3 900)	2 880( <sup>3</sup> )	3 000

Note<sup>(1)</sup> : Not applicable to the track rail with female threads for bellows (Supplemental code /J)  
<sup>(2)</sup> : Track rails with the maximum lengths shown in parentheses can also be manufactured. Consult IKO for further information.  
<sup>(3)</sup> : LRX85 track rail maximum length of half pitch (supplemental code "/HP") is 2970mm.  
 Remark : The above table shows representative model numbers and is also applicable to all high carbon steel track rails in the same size.

**Table 17.2 Standard and maximum lengths of stainless steel track rails**



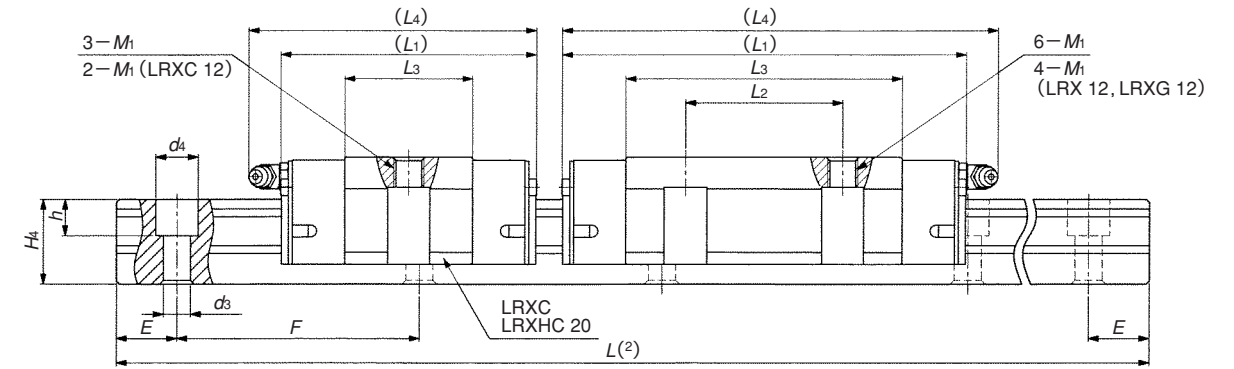
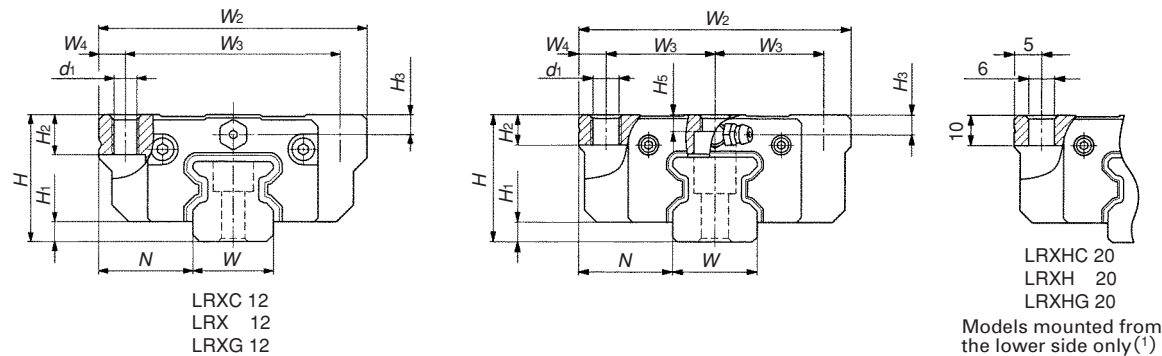
unit : mm

Model number	LRXD 10...SL	LRX 12...SL	LRX 15...SL	LRX 20...SL	LRX 25...SL	LRX 30...SL
Standard length <i>L</i> ( <i>n</i> )	50( 2) 100( 4) 150( 6) 200( 8) 250(10) 300(12) 350(14) 400(16) 450(18) 500(20)	80( 2) 160( 4) 240( 6) 320( 8) 400(10) 480(12) 560(14) 640(16) 720(18)	180( 3) 240( 4) 360( 6) 480( 8) 660(11)	240( 4) 480( 8) 660(11) 840(14)	240( 4) 480( 8) 660(11) 840(14)	480( 4) 640( 8) 800(10) 1 040(13)
Pitch of mounting holes <i>F</i>	25	40	60	60	60	80
<i>E</i>	12.5	20	30	30	30	40
Standard range of <i>E</i> ( <sup>1</sup> )	incl. 5 under 17.5	incl. 5.5 under 25.5	incl. 7 under 37	incl. 8 under 38	incl. 9 under 39	incl. 10 under 50
Maximum length( <sup>2</sup> )	850 (1 000)	1 000 (1 480)	1 200 (1 980)	1 200 (1 980)	1 200 (1 980)	1 200 (2 000)

Note<sup>(1)</sup> : Not applicable to the track rail with female threads for bellows (Supplemental code /J)  
<sup>(2)</sup> : Track rails with the maximum lengths shown in parentheses can also be manufactured. Consult IKO for further information.  
 Remark : The above table shows representative model numbers and is also applicable to all stainless steel track rails in the same size.

# Linear Roller Way Super X

Flange type mounted from the upper/lower side  
LRXC, LRX, LRXG



Model number	Interchangeable	Mass (Ref.)		Dimensions of assembly mm			Dimensions of slide unit mm											
		Slide unit kg	Track rail kg/m	H	H <sub>1</sub>	N	W <sub>2</sub>	W <sub>3</sub>	W <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	d <sub>1</sub>	M <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>5</sub>
LRXC 12	☆	0.058	0.92	19	3	14	40	32	4	37	—	14.8	40	3.4	M 4	6	3	—
LRX 12	☆	0.092								47	15	25.3	50					
LRXG 12	☆	0.13								58	35.8	61						
LRXC 15	☆	0.13	1.65	24	4	16	47	19	4.5	52	—	24	55	4.4	M 5	7	3.5	3
LRX 15	☆	0.20								68	30	40	71					
LRXG 15	☆	0.28								84	56	87						
LRXC 20 <sup>(1)</sup>	☆	0.29	2.73	30	5	21.5	63	26.5	5	66	—	31.6	74	— <sup>(1)</sup>	M 6 <sup>(1)</sup>	10	4	3.5
LRX 20 <sup>(1)</sup>	☆	0.44								86	40	51.6	94					
LRXG 20 <sup>(1)</sup>	☆	0.61								106	71.6	114						
LRXC 25	☆	0.44	3.59	36	6	23.5	70	28.5	6.5	74	—	36	83	7	M 8	10	5	5
LRX 25	☆	0.67								98	45	60	107					
LRXG 25	☆	0.84								113	75	122						
LRXC 30	☆	0.78	5.01	42	6.5	31	90	36	9	85	—	42.4	95	8.5	M10	10	6.5	5.5
LRX 30	☆	1.20								113	52	70.4	123					
LRXG 30	☆	1.58								134	91.4	144						

Dimensions of track rail mm							Mounting bolt for track rail mm Bolt size×length	Basic dynamic load rating <sup>(3)</sup> C N	Basic static load rating <sup>(3)</sup> C <sub>0</sub> N	Static moment rating <sup>(3)</sup>			Model number	
W	H <sub>4</sub>	d <sub>3</sub>	d <sub>4</sub>	h	E	F				T <sub>0</sub> N-m	T <sub>x</sub> N-m	T <sub>y</sub> N-m		
12	12	3.5	6	4.5	20	40	M3×12	3 900	6 090	46.3	16.3	16.3	LRXC 12	
											170	170		
											45.2	45.2		LRX 12
15	16.5	4.5	8	6	30	60	M4×16	7 730	12 000	113	88.6	88.6	LRXC 15	
											581	581		LRX 15
											136	136		LRXG 15
20	21	6	9.5	8.5	30	60	M5×20	16 100	26 400	341	150	150	LRXC 20 <sup>(1)</sup>	
											1 260	1 260		LRX 20 <sup>(1)</sup>
											379	379		LRXG 20 <sup>(1)</sup>
23	24.5	7	11	9	30	60	M6×25	21 600	33 800	500	713	713	LRXC 25	
											4 200	4 200		LRX 25
											213	213		LRXG 25
28	28	9	14	12	40	80	M8×28	29 200	44 600	808	329	329	LRXC 30	
											2 740	2 740		LRX 30
											883	883		LRXG 30
											1 470	1 470		
											8 740	8 740		

Note<sup>(1)</sup>: LRXC20, LRX20, and LRXG20 can be mounted from the upper side only. For mounting from the lower side, LRXHC20, LRXH20, and LRXHG20 which have the same dimensions as those of the above models can be used.

Note<sup>(2)</sup>: Track rail lengths L are shown in Table 17.1.

Note<sup>(3)</sup>: The directions of basic dynamic load rating (C), basic static load rating (C<sub>0</sub>), and static moment rating (T<sub>0</sub>, T<sub>x</sub>, T<sub>y</sub>) are shown in the sketches below.

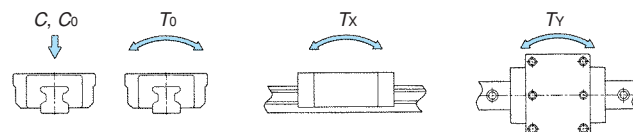
The upper values in the T<sub>x</sub> and T<sub>y</sub> columns apply to one slide unit, and the lower values apply to two slide units in close contact.

Remark 1: The mark ☆ indicates that interchangeable specification products are available.

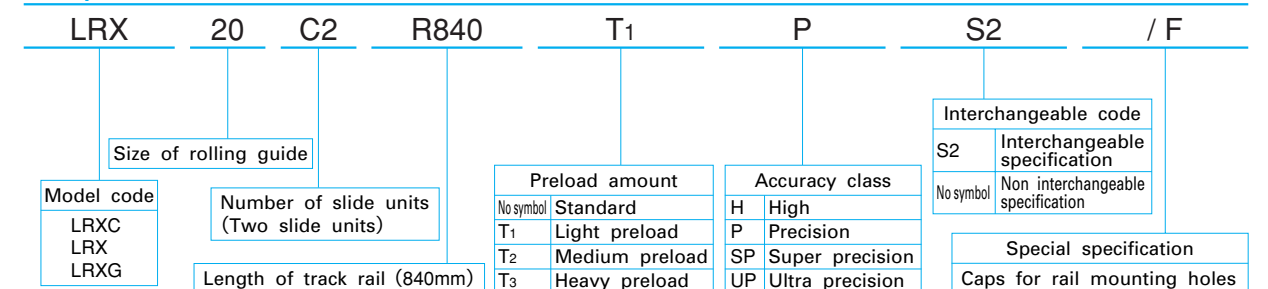
Remark 2: The appended track rail mounting bolts are hexagon socket head bolts of JIS B 1176 or equivalent.

Remark 3: For grease nipple specifications, see Table 12.

Remark 4: A grease nipple mounting thread is provided on the left and right end plates respectively.



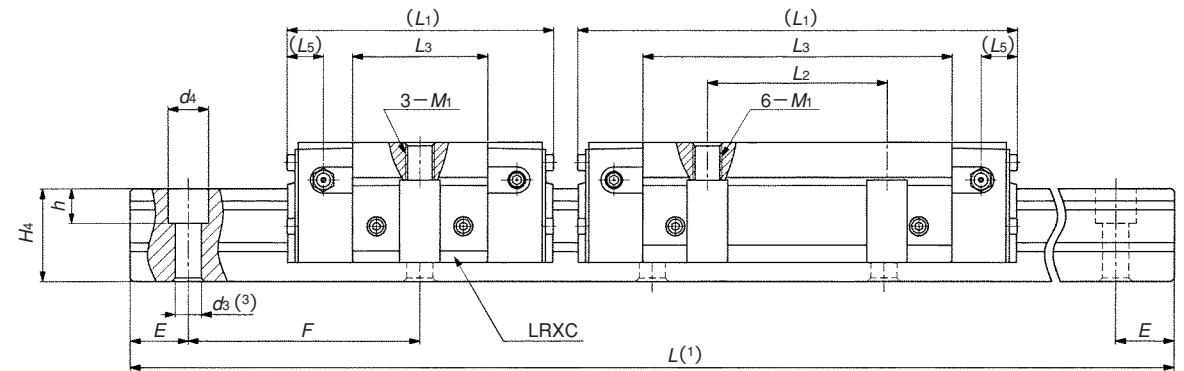
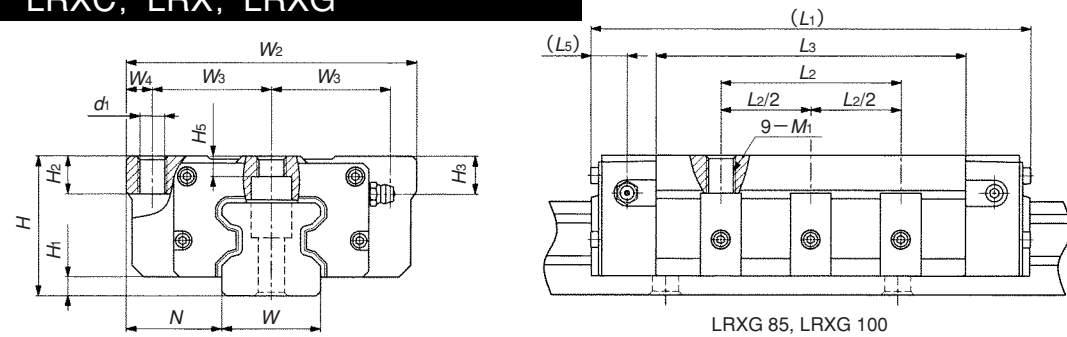
### Example of identification number of assembled set





# Linear Roller Way Super X

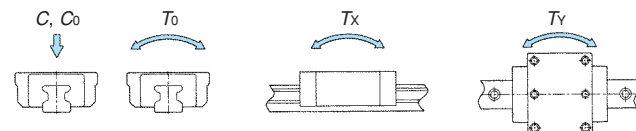
Flange type mounted from the upper/lower side  
LRXC, LRX, LRXG



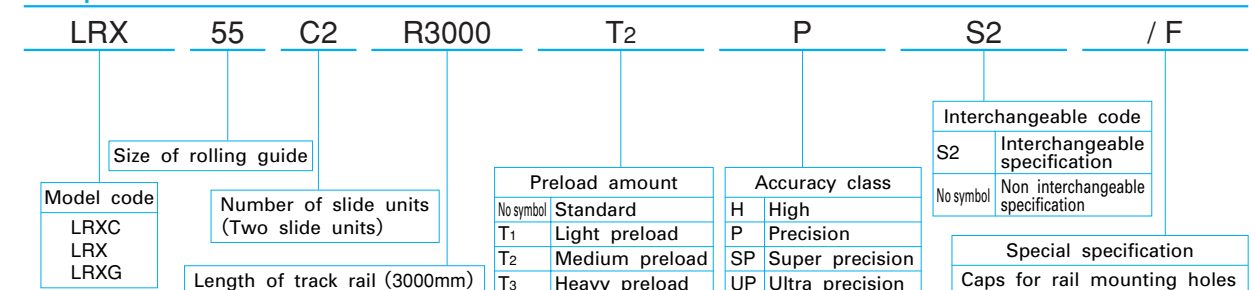
Model number	Interchangeable	Mass (Ref.)		Dimensions of assembly mm			Dimensions of slide unit mm												
		Slide unit kg	Track rail kg/m	H	H <sub>1</sub>	N	W <sub>2</sub>	W <sub>3</sub>	W <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>5</sub>	d <sub>1</sub>	M <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>5</sub>	H <sub>6</sub>
LRXC 35	☆	1.13	6.88	48	6.5	33	100	41	9	92	—	46.6	12.5	8.5	M10	13	13	7	—
LRX 35	☆	1.76								124	62	78.6							
LRXG 35	☆	2.41								152	—	106.6							
LRXC 45	☆	2.11	10.8	60	8	37.5	120	50	10	114	—	59	17.5	10.5	M12	15	16	11	—
LRX 45	☆	3.26								154	80	99							
LRXG 45	☆	4.60								194	—	139							
LRXC 55	☆	3.49	14.1	70	9	43.5	140	58	12	136	—	72	20	12.5	M14	17	16	14	—
LRX 55	☆	5.42								184	95	120							
LRXG 55	☆	7.93								238	—	174							
LRXC 65	☆	7.18	22.6	90	12	53.5	170	71	14	181	—	95	26.6	14.5	M16	23	18	18.5	—
LRX 65	☆	11.5								245	110	159							
LRXG 65	☆	16.0								309	—	223							
LRX 85		25.4	36.7	110	16	65	215	92.5	15	323	140	232	27.5	17.8	M20	35	22	25.5	20
LRXG 85		32.7								395	200	304							
LRXG 100		43.0	43.2	120	15	75	250	110	15	362	200	262	29.7	17.8	M20	35	30	30.5	—

Dimensions of track rail mm							Mounting bolt for track rail mm Bolt size×length	Basic dynamic load rating <sup>(2)</sup> C N	Basic static load rating <sup>(2)</sup> C <sub>0</sub> N	Static moment rating <sup>(2)</sup>			Model number	
W	H <sub>4</sub>	d <sub>3</sub>	d <sub>4</sub>	h	E	F				T <sub>0</sub> N-m	T <sub>x</sub> N-m	T <sub>y</sub> N-m		
34	32	9	14	12	40	80	M 8×35	39 500	60 000	1 300	506	506	LRXC 35	
											3 950	3 950		
											1 360	1 360		
45	38	14	20	17	52.5	105	M12×40	58 700	100 000	2 170	1 360	1 360	LRX 35	
											8 470	8 470		
											2 440	2 440		
53	43	16	23	20	60	120	M14×45	74 200	135 000	2 930	2 440	2 440	LRXG 35	
											13 800	13 800		
											5 220	5 220		
63	56	18	26	22	75	150	M16×60	64 100	95 600	2 660	1 010	1 010	LRXC 45	
											7 800	7 800		
											2 700	2 700		
85	67	26.5	39	30	90	180	M24×70	95 400	159 000	4 430	2 700	2 700	LRX 45	
											16 800	16 800		
											5 220	5 220		
100	70	33	48	36	75	150	M30×80	124 000	223 000	6 200	5 220	5 220	LRXG 45	
											29 000	29 000		
											99 700	149 000		4 830
63	56	18	26	22	75	150	M16×60	148 000	248 000	8 040	5 040	5 040	LRX 55	
											31 100	31 100		
											10 400	10 400		
85	67	26.5	39	30	90	180	M24×70	198 000	359 000	11 700	10 400	10 400	LRXG 55	
											57 000	57 000		
											174 000	249 000		9 790
63	56	18	26	22	75	150	M16×60	260 000	415 000	16 300	11 300	11 300	LRX 65	
											69 300	69 300		
											21 800	21 800		
85	67	26.5	39	30	90	180	M24×70	337 000	581 000	22 800	21 800	21 800	LRXG 65	
											120 000	120 000		
											440 000	753 000		38 900
100	70	33	48	36	75	150	M30×80	542 000	985 000	50 800	50 000	50 000	LRXG 85	
											257 000	257 000		
											498 000	821 000		49 700

Note<sup>(1)</sup>: Track rail lengths L are shown in Table 17.1.  
<sup>(2)</sup>: The directions of basic dynamic load rating (C), basic static load rating (C<sub>0</sub>), and static moment rating (T<sub>0</sub>, T<sub>x</sub>, T<sub>y</sub>) are shown in the sketches below.  
 The upper values in the T<sub>x</sub> and T<sub>y</sub> columns apply to one slide unit, and the lower values apply to two slide units in close contact.  
<sup>(3)</sup>: The track rail longer (and equal) than 1000mm of LRX85, LRXG85 and LRXG100 have several threaded holes for the purpose of specified hanging bolt. Consult IKO for details.  
 Remark 1: The mark ☆ indicates that interchangeable specification products are available.  
 2: The appended track rail mounting bolts are hexagon socket head bolts of JIS B 1176 or equivalent.  
 3: For grease nipple specifications, see Table 12.  
 4: Three grease nipple mounting threads are provided on the left and right end plates respectively.

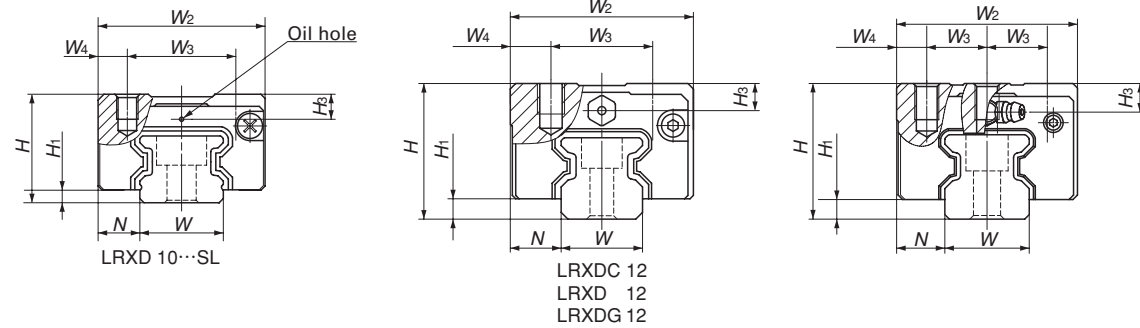


### Example of identification number of assembled set



# Linear Roller Way Super X

Block type mounted from the upper side  
LRXDC, LRXD, LRXDG



Model number	Interchangeable	Mass (Ref.)		Dimensions of assembly mm			Dimensions of slide unit mm									
		Slide unit kg	Track rail kg/m	H	H <sub>1</sub>	N	W <sub>2</sub>	W <sub>3</sub>	W <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	M <sub>1</sub> ×depth	H <sub>3</sub>	W
LRXD 10...SL		0.028	0.48	13	1.5	5	20	13	3.5	34.5	12	20.8	—	M2.6 × 3	3	10
LRXDC 12	☆	0.045	0.92	20	3	7.5	27	15	6	37	—	14.8	40	M4 × 4.5	4	12
LRXD 12	☆									47	15	25.3	50			
LRXD 12...SL	☆	0.072	0.92	20	3	7.5	27	15	6	58	—	35.8	61	M4 × 4.5	4	12
LRXDG 12	☆	0.097								58	15	35.8	61			
LRXDC 15	☆	0.13	1.65	28	4	9.5	34	13	4	52	—	24	55	M4 × 8	7.5	15
LRXD 15	☆									68	26	40	71			
LRXD 15...SL	☆	0.19	1.65	28	4	9.5	34	13	4	84	—	56	87	M4 × 8	7.5	15
LRXDG 15	☆	0.26								84	26	56	87			
LRXDC 20	☆	0.25	2.73	34	5	12	44	16	6	66	—	31.6	74	M5 × 8	8	20
LRXD 20	☆									86	36	51.6	94			
LRXD 20...SL	☆	0.38	2.73	34	5	12	44	16	6	106	—	71.6	114	M5 × 8	8	20
LRXDG 20	☆	0.52								106	50	71.6	114			
LRXDC 25	☆	0.36	3.59	40	6	12.5	48	17.5	6.5	74	—	36	83	M6 × 12	9	23
LRXD 25	☆									98	35	60	107			
LRXD 25...SL	☆	0.55	3.59	40	6	12.5	48	17.5	6.5	113	—	75	122	M6 × 12	9	23
LRXDG 25	☆	0.68								113	50	75	122			
LRXDC 30	☆	0.60	5.01	45	6.5	16	60	20	10	85	—	42.4	95	M8 × 12	9.5	28
LRXD 30	☆									113	40	70.4	123			
LRXD 30...SL	☆	0.92	5.01	45	6.5	16	60	20	10	134	—	91.4	144	M8 × 12	9.5	28
LRXDG 30	☆	1.18								134	60	91.4	144			

Note<sup>(1)</sup>: Track rail lengths L are shown in Table 17.1 and 17.2.

Note<sup>(2)</sup>: The directions of basic dynamic load rating (C), basic static load rating (C<sub>0</sub>), and static moment rating (T<sub>0</sub>, T<sub>x</sub>, T<sub>y</sub>) are shown in the sketches below.

The upper values in the T<sub>x</sub> and T<sub>y</sub> columns apply to one slide unit, and the lower values apply to two slide units in close contact.

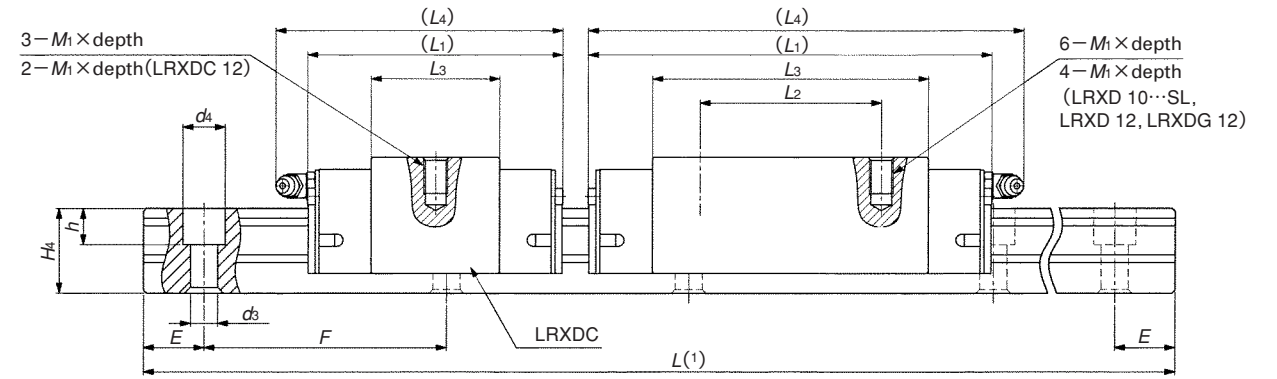
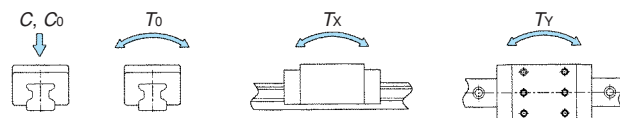
Remark 1: The mark ☆ indicates that interchangeable specification products are available.

Remark 2: The appended track rail mounting bolts are hexagon socket head bolts of JIS B 1176 or equivalent.

Remark 3: For stainless steel series Linear Roller Way Super X, stainless steel bolts are appended.

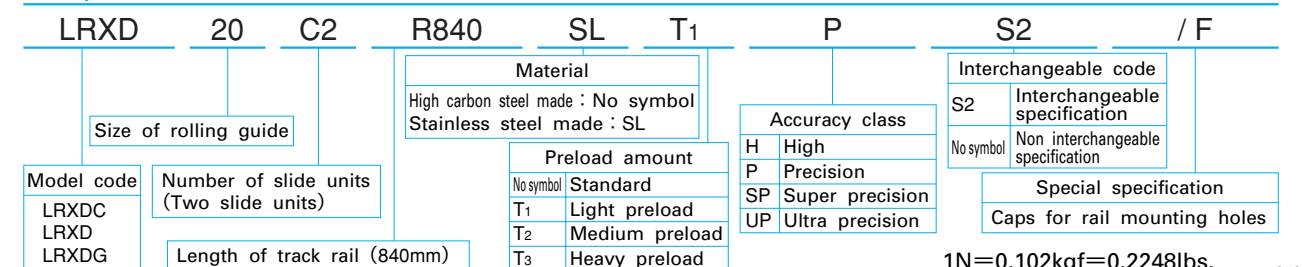
Remark 4: For grease nipple specifications, see Table 12.

Remark 5: A grease nipple mounting thread is provided on the left and right end plates respectively.



Dimensions of track rail mm						Mounting bolt for track rail mm Bolt size×length	Basic dynamic load rating <sup>(2)</sup> C N	Basic static load rating <sup>(2)</sup> C <sub>0</sub> N	Static moment rating <sup>(2)</sup>			Model number
H <sub>4</sub>	d <sub>3</sub>	d <sub>4</sub>	h	E	F				T <sub>0</sub> N-m	T <sub>x</sub> N-m	T <sub>y</sub> N-m	
8	3.5	6	3.5	12.5	25	M3×10	3 200	5 880	37.9	20.9 140	20.9 140	LRXD 10...SL
12	3.5	6	4.5	20	40	M3×12	3 900	6 090	46.3	16.3 170	16.3 170	LRXDC 12
							5 890	10 400	78.7	45.2 343	45.2 343	LRXD 12
16.5	4.5	8	6	30	60	M4×16	7 710	14 600	111	88.6 581	88.6 581	LRXD 12...SL
							7 730	12 000	113	50.6 457	50.6 457	LRXDC 15
21	6	9.5	8.5	30	60	M5×20	11 500	20 000	188	136 942	136 942	LRXD 15
							14 900	28 000	263	262 1 590	262 1 590	LRXDC 20
24.5	7	11	9	30	60	M6×25	16 100	26 400	341	150 1 260	150 1 260	LRXD 15...SL
							23 400	42 700	550	379 2 520	379 2 520	LRXDC 25
28	9	14	12	40	80	M8×28	30 100	58 900	760	713 4 200	713 4 200	LRXD 20
							21 600	33 800	500	213 1 810	213 1 810	LRXDC 30
28	9	14	12	40	80	M8×28	32 100	56 300	833	573 3 800	573 3 800	LRXD 20...SL
							38 200	70 300	1 040	885 5 380	885 5 380	LRXDC 25
28	9	14	12	40	80	M8×28	29 200	44 600	808	329 2 740	329 2 740	LRXD 25
							43 400	74 400	1 350	883 5 780	883 5 780	LRXDC 30...SL
							53 200	96 700	1 750	1 470 8 740	1 470 8 740	LRXD 30
												LRXD 30...SL
												LRXDG 30
												LRXDG 30...SL

### Example of identification number of assembled set

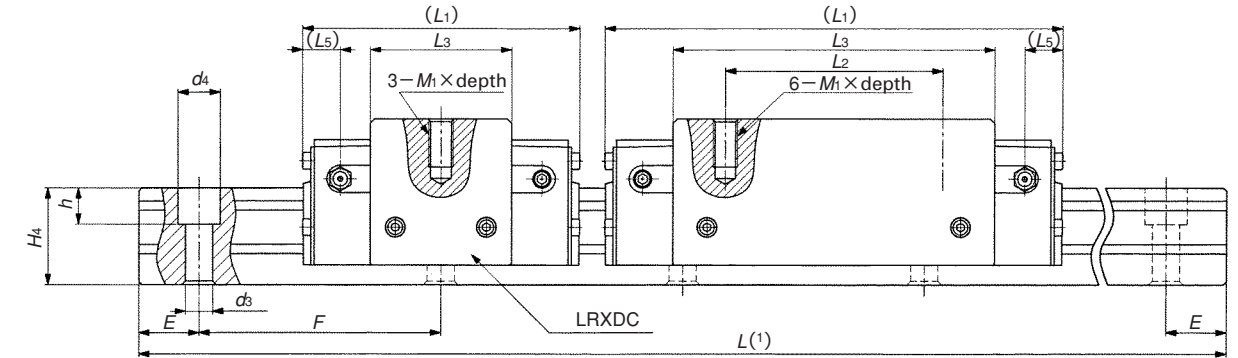
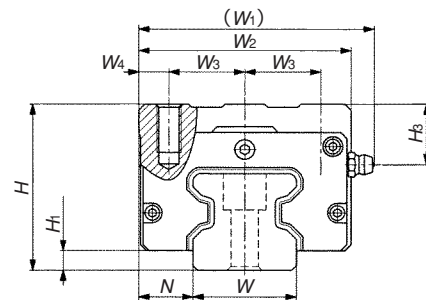


1N=0.102kgf=0.2248lbs.  
1mm=0.03937inch



# Linear Roller Way Super X

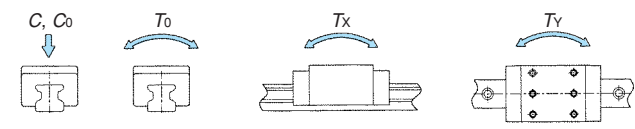
Block type mounted from the upper side  
LRXDC, LRXD, LRXDG



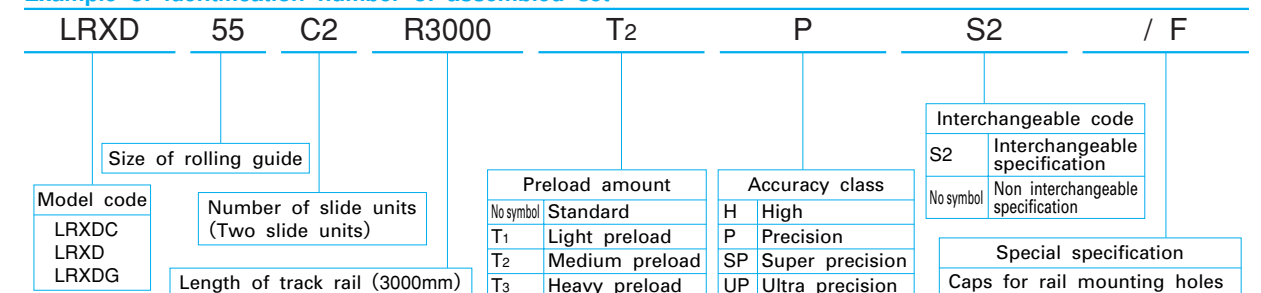
Model number	Interchangeable	Mass (Ref.)		Dimensions of assembly mm			Dimensions of slide unit mm									
		Slide unit kg	Track rail kg/m	H	H <sub>1</sub>	N	W <sub>1</sub>	W <sub>2</sub>	W <sub>3</sub>	W <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>5</sub>	M1×depth	H <sub>3</sub>
LRXDC 35	☆	0.97	6.88	55	6.5	18	80	70	25	10	92	—	46.6	12.5	M 8×16	20
LRXD 35	☆	1.52									124	50	78.6			
LRXDG 35	☆	2.02									152	72	106.6			
LRXDC 45	☆	2.01	10.8	70	8	20.5	98	86	30	13	114	—	59	17.5	M10×20	26
LRXD 45	☆	3.13									154	60	99			
LRXDG 45	☆	4.29									194	80	139			
LRXDC 55	☆	3.17	14.1	80	9	23.5	112	100	37.5	12.5	136	—	72	20	M12×25	26
LRXD 55	☆	4.97									184	75	120			
LRXDG 55	☆	7.06									238	95	174			
LRXDC 65	☆	5.52	22.6	90	12	31.5	136	126	38	25	181	—	95	26.6	M16×25	18
LRXD 65	☆	8.70									245	70	159			
LRXDG 65	☆	12.1									309	120	223			

Dimensions of track rail mm							Mounting bolt for track rail mm Bolt size×length	Basic dynamic load rating <sup>(2)</sup> C N	Basic static load rating <sup>(2)</sup> C <sub>0</sub> N	Static moment rating <sup>(2)</sup>			Model number
W	H <sub>4</sub>	d <sub>3</sub>	d <sub>4</sub>	h	E	F				T <sub>0</sub> N-m	T <sub>x</sub> N-m	T <sub>y</sub> N-m	
34	32	9	14	12	40	80	M 8×35	39 500	60 000	1 300	506	506	LRXDC 35
											3 950	3 950	
											1 360	1 360	
45	38	14	20	17	52.5	105	M12×40	58 700	100 000	2 170	1 360	1 360	LRXD 35
											8 470	8 470	
											2 440	2 440	
53	43	16	23	20	60	120	M14×45	74 200	135 000	2 930	2 440	2 440	LRXDG 35
											13 800	13 800	
											1 010	1 010	
63	56	18	26	22	75	150	M16×60	64 100	95 600	2 660	7 800	7 800	LRXDC 45
											16 800	16 800	
											2 700	2 700	
63	56	18	26	22	75	150	M16×60	95 400	159 000	4 430	5 220	5 220	LRXD 45
											29 000	29 000	
											1 880	1 880	
63	56	18	26	22	75	150	M16×60	99 700	149 000	4 830	14 400	14 400	LRXDC 55
											5 040	5 040	
											31 100	31 100	
63	56	18	26	22	75	150	M16×60	148 000	248 000	8 040	10 400	10 400	LRXD 55
											57 000	57 000	
											4 200	4 200	
63	56	18	26	22	75	150	M16×60	174 000	249 000	9 790	32 200	32 200	LRXDC 65
											11 300	11 300	
											69 300	69 300	
63	56	18	26	22	75	150	M16×60	260 000	415 000	16 300	21 800	21 800	LRXD 65
											120 000	120 000	

Note<sup>(1)</sup> : Track rail lengths L are shown in Table 17.1.  
<sup>(2)</sup> : The directions of basic dynamic load rating (C), basic static load rating (C<sub>0</sub>), and static moment rating (T<sub>0</sub>, T<sub>x</sub>, T<sub>y</sub>) are shown in the sketches below.  
 The upper values in the T<sub>x</sub> and T<sub>y</sub> columns apply to one slide unit, and the lower values apply to two slide units in close contact.  
 Remark 1 : The mark ☆ indicates that interchangeable specification products are available.  
 2 : The appended track rail mounting bolts are hexagon socket head bolts of JIS B 1176 or equivalent.  
 3 : For grease nipple specifications, see Table 12.  
 4 : Three grease nipple mounting threads are provided on the left and right end plates respectively.

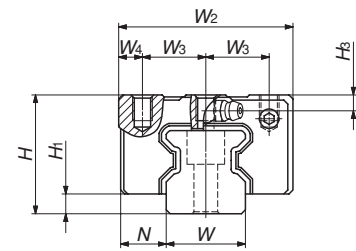


### Example of identification number of assembled set



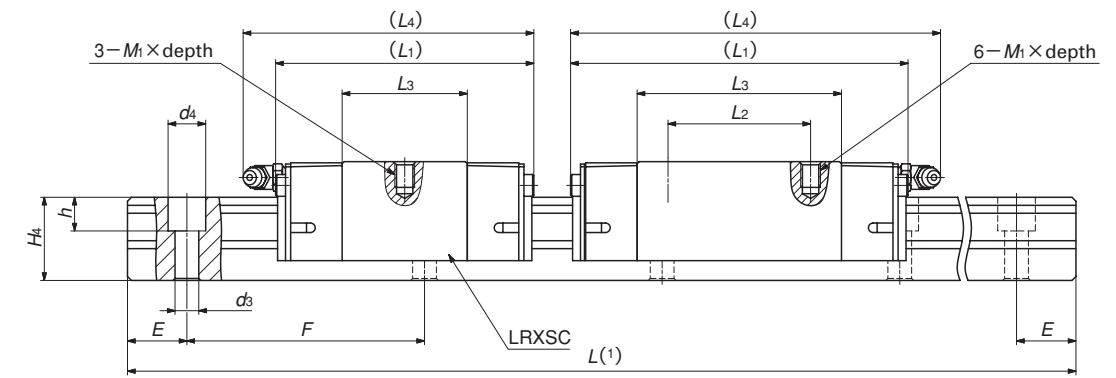
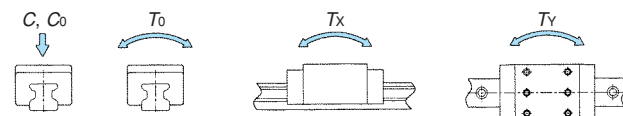
# Linear Roller Way Super X

Compact block type mounted from the upper side  
LRXSC, LRXS, LRXSG



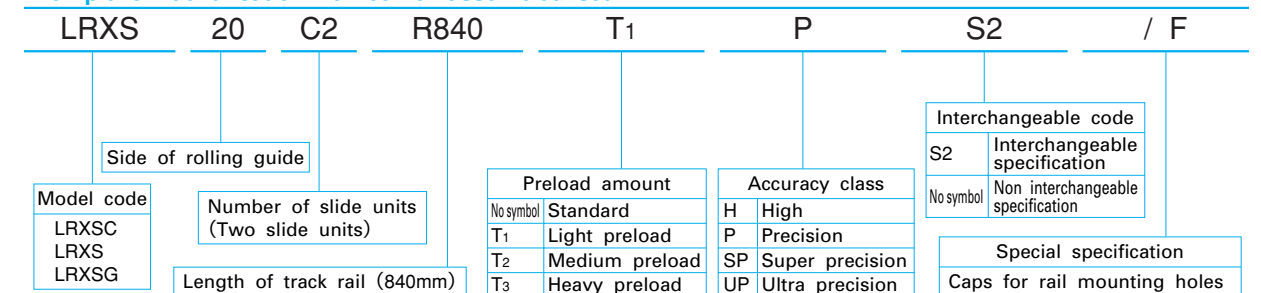
Model number	Interchangeable	Mass (Ref.)		Dimension of assembly mm			Dimension of slide unit mm									
		Slide unit kg	Track rail kg/m	H	H <sub>1</sub>	N	W <sub>2</sub>	W <sub>3</sub>	W <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	M <sub>1</sub> ×depth <sup>(2)</sup>	H <sub>3</sub>	W
LRXSC 15	☆	0.099	1.65	24	4	9.5	34	13	4	52	—	24	55	M4×5.5	3.5	15
LRXS 15	☆	0.15								68	26	40	71			
LRXSG 15	☆	0.21								84	56	87				
LRXSC 20	☆	0.21	2.73	30	5	12	44	16	6	66	—	31.6	74	M5×6.5	4	20
LRXS 20	☆	0.31								86	36	51.6	94			
LRXSG 20	☆	0.42								106	50	71.6	114			
LRXSC 25	☆	0.30	3.59	36	6	12.5	48	17.5	6.5	74	—	36	83	M6×9	5	23
LRXS 25	☆	0.47								98	35	60	107			
LRXSG 25	☆	0.57								113	50	75	122			
LRXSC 30	☆	0.54	5.01	42	6.5	16	60	20	10	85	—	42.4	95	M8×11	6.5	28
LRXS 30	☆	0.83								113	40	70.4	123			
LRXSG 30	☆	1.05								134	60	91.4	144			

Note<sup>(1)</sup>: Track rail lengths L are shown in Table 17.1.  
<sup>(2)</sup>: Recommended screwing depths are shown in Table 13.  
<sup>(3)</sup>: The directions of basic dynamic load rating (C), basic static load rating (C<sub>0</sub>), and static moment rating (T<sub>0</sub>, T<sub>x</sub>, T<sub>y</sub>) are shown in the sketches below.  
 Remark 1: The mark ☆ indicates that interchangeable specification products are available.  
 2: Appended track rail mounting bolts are hexagon socket head bolts of JIS B 1176 or equivalent.  
 3: For grease nipple specifications, see Table 12.  
 4: Three grease nipple mounting threads are provided on the left and right end plates respectively.



Dimensions of track rail mm						Mounting bolt for track rail mm Bolt size×length	Basic dynamic load rating <sup>(3)</sup> C N	Basic static load rating <sup>(3)</sup> C <sub>0</sub> N	Static moment rating <sup>(3)</sup>			Model number
H <sub>4</sub>	d <sub>3</sub>	d <sub>4</sub>	h	E	F				T <sub>0</sub> N-m	T <sub>x</sub> N-m	T <sub>y</sub> N-m	
16.5	4.5	8	6	30	60	M4×16	7 730	12 000	113	50.6 457	50.6 457	LRXSC 15
							11 500	20 000	188	136 942	136 942	LRXS 15
							14 900	28 000	263	262 1 590	262 1 590	LRXSG 15
21	6	9.5	8.5	30	60	M5×20	16 100	26 400	341	150 1 260	150 1 260	LRXSC 20
							23 400	42 700	550	379 2 520	379 2 520	LRXS 20
							30 100	58 900	760	713 4 200	713 4 200	LRXSG 20
24.5	7	11	9	30	60	M6×25	21 600	33 800	500	213 1 810	213 1 810	LRXSC 25
							32 100	56 300	833	573 3 800	573 3 800	LRXS 25
							38 200	70 300	1 040	885 5 380	885 5 380	LRXSG 25
28	9	14	12	40	80	M8×28	29 200	44 600	808	329 2 740	329 2 740	LRXSC 30
							43 400	74 400	1 350	883 5 780	883 5 780	LRXS 30
							53 200	96 700	1 750	1 470 8 740	1 470 8 740	LRXSG 30

### Example of identification number of assembled set





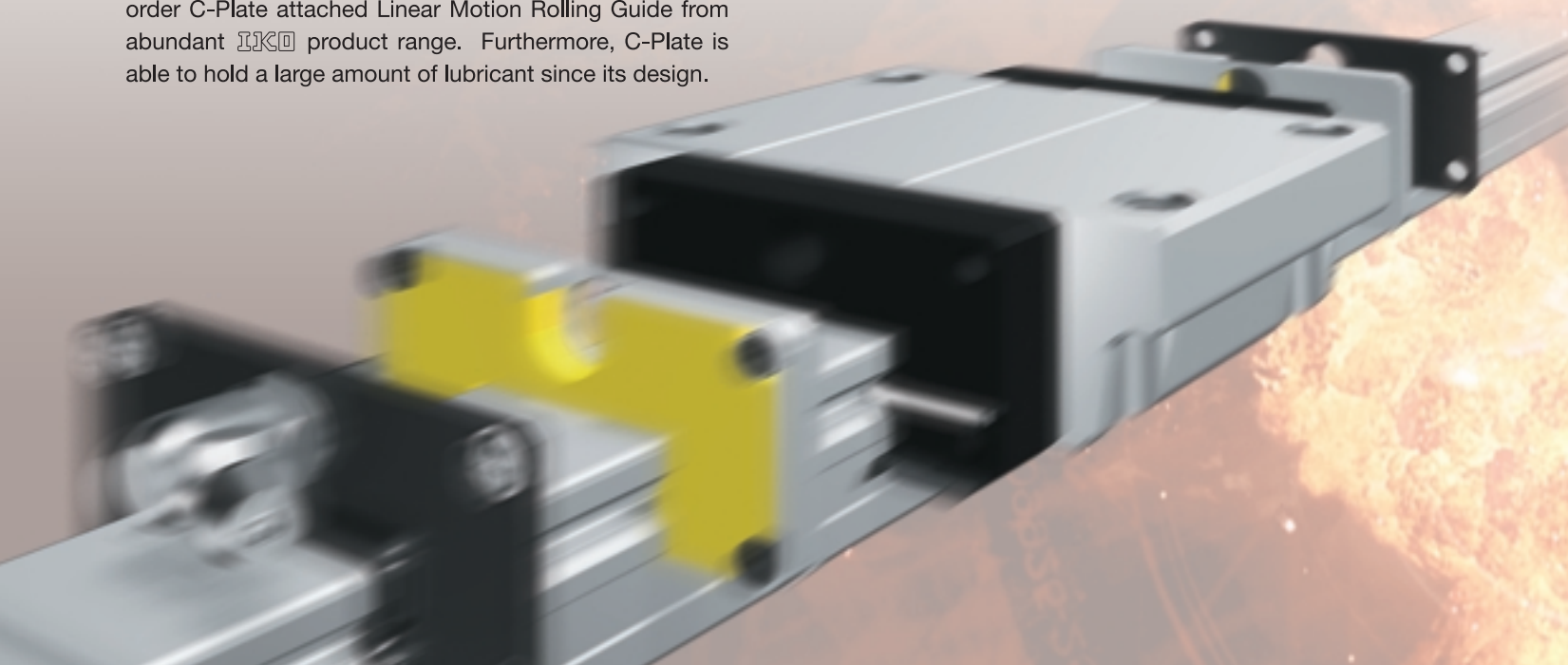
# Maintenance Free Specification

C-Plate installed on Linear Way, Linear Roller Way and Ball Spline G.

## **IKO** Maintenance Free Series

### Linear Motion Rolling Guide Series with C-Plate

IKO Linear Motion Rolling Guide Series with C-Plate is a linear motion rolling guide slide unit or external cylinder equipped with lubrication component part. You can now order C-Plate attached Linear Motion Rolling Guide from abundant IKO product range. Furthermore, C-Plate is able to hold a large amount of lubricant since its design.



#### Many variations

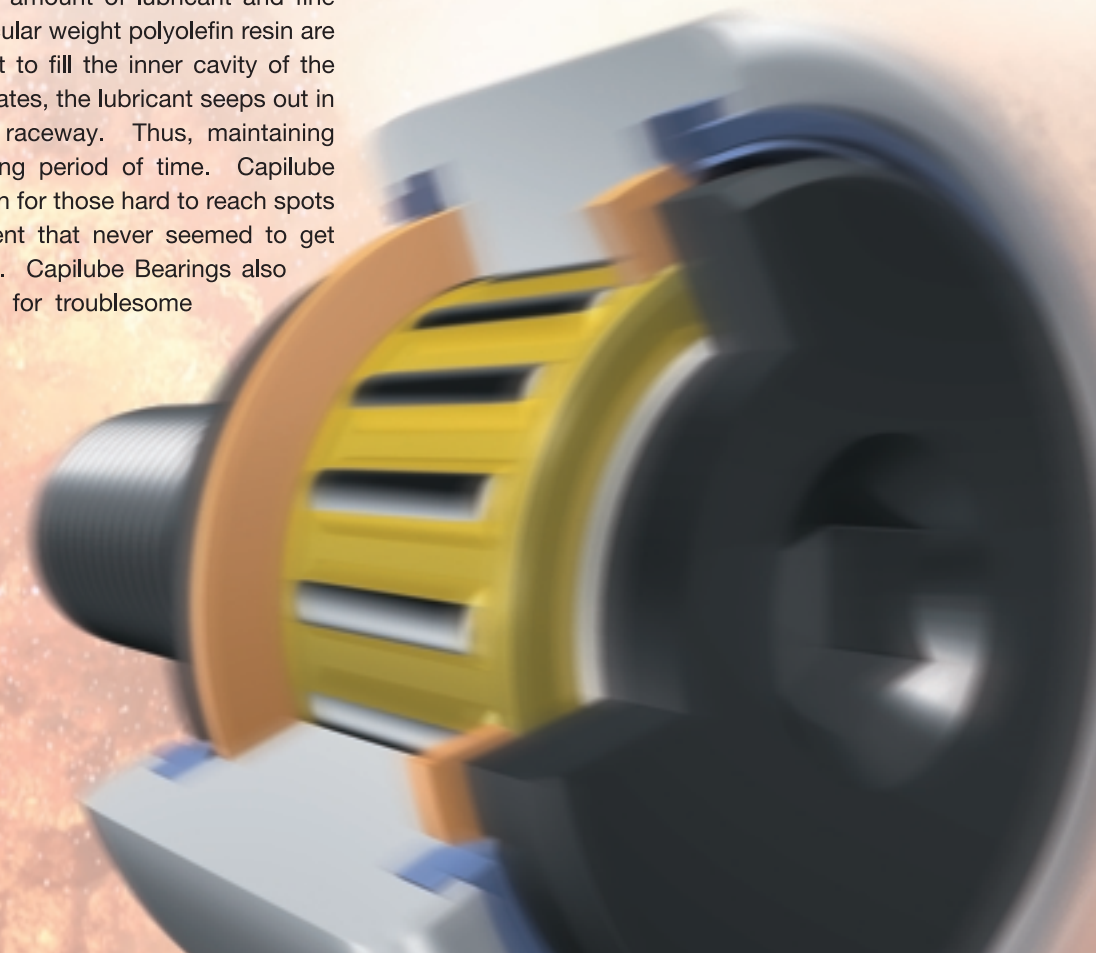
- Linear Way L
- Linear Way E
- Low Decibel Linear Way E
- Linear Way H
- Linear Way F
- Linear Way U
- Linear Roller Way Super X
- Linear Roller Way X
- Ball Spline G

Capilube integrated in IKO Needle Bearing Series.

## **IKO** Maintenance Free Series

### Capilube Bearing

Capilube Bearing is a rotational bearing that is prepacked with a thermosetting solid lubricant know as "Capilube" in its bearing cavity. A large amount of lubricant and fine particles of ultra high molecular weight polyolefin resin are solidified by heat treatment to fill the inner cavity of the bearing. As the bearing rotates, the lubricant seeps out in suitable amount onto the raceway. Thus, maintaining proper lubrication for a long period of time. Capilube Bearings are a great solution for those hard to reach spots on machines and equipment that never seemed to get greased when they need it. Capilube Bearings also reduce man-hours needed for troublesome lubrication control.



Capilube Cam Follower  
CF.../SG



Machined type • Shell type Capilube Bearing  
※ Applicable to caged type only



# World Network of **IKO**

## **NIPPON THOMPSON CO., LTD.**

Head office : 19-19 Takanawa 2-chome Minato-ku,  
Tokyo 108-8586, Japan  
Phone : +81 (0)3-3448-5850  
Fax : +81 (0)3-3447-7637  
E-mail : ntt@ikonet.co.jp  
URL : <http://www.ikonet.co.jp/eg/>  
Plant : Gifu, Kamakura

## **NIPPON THOMPSON CO., LTD.**

### **ASEAN REPRESENTATIVE OFFICE**

586 Luang Road, Pomprab  
Pomprab Satrupai, Bangkok  
Thailand 10100  
Phone: +66 (0)-2623-3699  
Fax: +66 (0)-2623-0716  
E-mail: iko@anet.net.th

## **IKO-THOMPSON (SHANGHAI) LTD.**

Room 23G, Zhao Feng World Trade Building  
No.369, Jiang Su Road,  
Changning District, Shanghai 200050,  
People's Republic of China  
Phone: +86 (0)21-5237-9100  
Fax: +86 (0)21-5237-9095

## **IKO INTERNATIONAL, INC.**

### **East coast**

91 Walsh Drive  
Parsippany, NJ 07054  
U.S.A.  
Phone: +1 973-402-0254  
Toll Free: 1-800-922-0337  
Fax: +1 973-402-0441  
E-mail: eco@ikonet.co.jp

### **Midwest**

500 East Thorndale Avenue  
Wood Dale, IL 60191  
U.S.A.  
Phone: +1 630-766-6464  
Toll Free: 1-800-323-6694  
Fax: +1 630-766-6869  
E-mail: mwo@ikonet.co.jp

### **West coast**

20170 South Western Avenue  
Torrance, CA 90501  
U.S.A.  
Phone: +1 310-609-3988  
Toll Free: 1-800-252-3665  
Fax: +1 310-609-3916  
E-mail: wco@ikonet.co.jp

### **Southeast**

2150 Boggs Road, Suite 100  
Duluth, GA 30096  
U.S.A.  
Phone: +1 770-418-1904  
Toll Free: 1-800-874-6445  
Fax: +1 770-418-9403  
E-mail: seo@ikonet.co.jp

### **Southwest**

8105 N. Beltline Road  
Suite 130, Irving, TX 75063  
U.S.A.  
Phone: +1 972-929-1515  
Toll Free: 1-800-295-7886  
Fax: +1 972-915-0060  
E-mail: swo@ikonet.co.jp

## **NIPPON THOMPSON EUROPE B.V.**

### **The Netherlands**

Sheffieldstraat 35-39  
3047 AN Rotterdam  
The Netherlands  
Phone: +31 (0)10-4626868  
Fax: +31 (0)10-4626099  
E-mail: nte@ikonet.co.jp

### **Germany**

Mündelheimer Weg 56  
40472 Düsseldorf  
Germany  
Phone: +49 (0)211-414061  
Fax: +49 (0)211-427693  
E-mail: ntd@ikonet.co.jp

Im Gewerbepark D 30  
93059 Regensburg  
Germany  
Phone: +49 (0)941-206070  
Fax: +49 (0)941-2060719  
E-mail: ntdr@iko-nt.de

Gruben Str.95c  
66540 Neunkirchen  
Germany  
Phone: +49 (0)6821-999-860  
Fax: +49 (0)6821-999-8626  
E-mail: ntdn@iko-nt.de

### **UK**

2 Vincent Avenue, Crownhill  
Milton Keynes Bucks MK8 0AB  
United Kingdom  
Phone: +44 (0)1908-566144  
Fax: +44 (0)1908-565458  
E-mail: sales@iko.co.uk

### **Spain**

Autovia Madrid-Barcelona, Km. 43,700  
Polig. Ind. AIDA, A-8, Ofic. 2, 1ª  
19200-Azuqueca de Henares  
Guadalajara, Spain  
Phone: +34 949-263390  
Fax: +34 949-263113  
E-mail: nts@ikonet.co.jp

### **France**

Roissypole Le Dôme  
2 rue de La Haye  
BP 15950 Tremblay en France  
95733 Roissy C. D. G. Cedex  
France  
Phone: +33 (0)1-48165739  
Fax: +33 (0)1-48165746  
E-mail: ntf@ikonet.co.jp

Recognizing that conservation of the global environment is the top-priority challenge for the world's population, Nippon Thompson will conduct its activities with consideration of the environment as a corporate social responsibility, reduce its negative impact on the environment, and help foster a rich global environment.

**ISO 9001 & 14001 Quality system  
registration certificate**

