

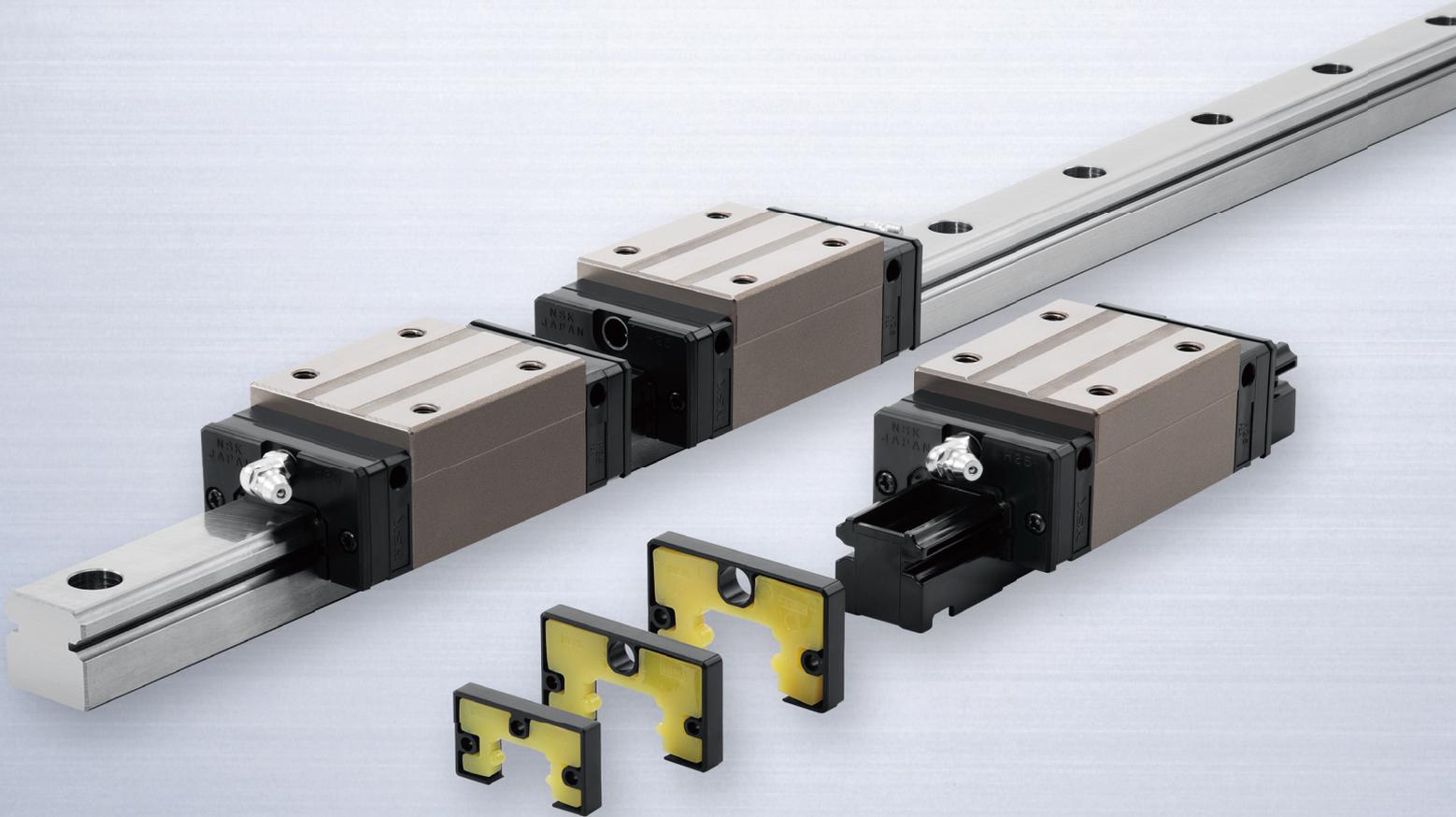
# NSK Linear Guides

## NSK K1-L Lubrication Unit

**New!**

Patent pending

Extends maintenance interval by  
improving lubricating oil supply capacity



### ■ NSK K1-L Features

#### 1. Low Maintenance, Longer Lasting Lubricating Oil Supply

Newly developed oil-containing material supplies lubricating oil for even longer than the revolutionary original K1, realizing extended machine maintenance intervals.

#### 2. Lower Dynamic Friction Force

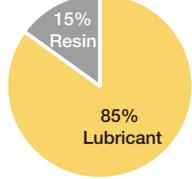
Reduces dynamic friction force when driving the ball slide, contributing to energy savings during machine operation.

# NSK K1-L Lubrication Unit for NSK Linear Guides

NSK K1-L is made of a porous synthetic resin containing abundant lubricating oil. The oil gradually seeps out, thereby lubricating the linear guide over a long period.

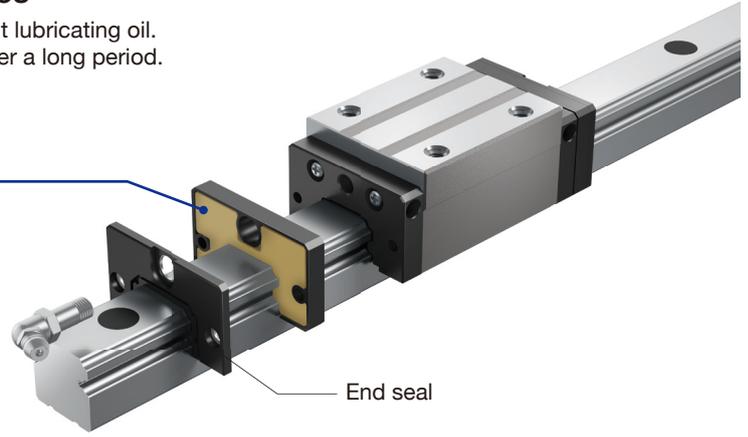
## NSK K1-L Lubrication Unit

- About 85% lubricant by weight
- Lubricating oil supply period nearly doubled compared to conventional K1 Unit<sup>1</sup>.

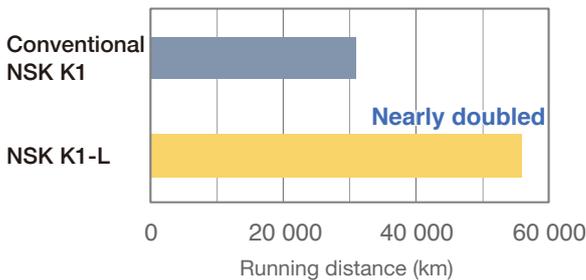


NSK K1-L Composition (by weight)

<sup>1</sup>Compared with conventional NSK K1 unit. Lubrication performance is affected by operating environment. No warranty is given regarding lubrication performance in actual usage in machinery.

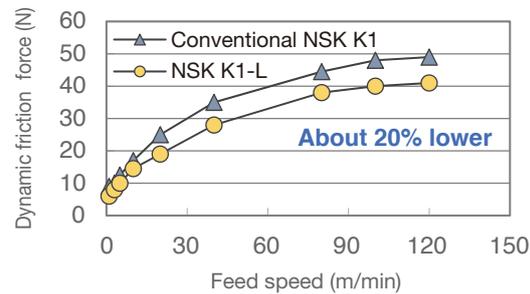


## Durability Test Result



Sample : NH25 (slight preload)  
 Lubrication : Lubrication unit only  
 Feed speed : 3.2 m/sec  
 Stroke : 2.5 m

## Dynamic Friction Force Measurement Result



Sample : NH25 (slight preload)  
 Lubrication : Lubrication unit and AS2 grease  
 Feed Speed : 1 to 120 m/min

## Applicable Models

NH15, NH20, NH25, NH30, NH35  
 NS15, NS20, NS25

## Designation for Preloaded Assembly

(Pre-assembled) **NH 25 1200 AN C 2 \*\*\* L5 3**

NH : NH Model  
 NS : NS Model  
 Size: 15, 20, 25, 30\*, 35\*  
 \* NH Model only  
 Rail length (mm)  
 Ball slide shape code: AN, BN, AL, BL, EM, GM  
 Material/surface treatment code:  
 C: Special high carbon steel (NSK standard), K: Stainless steel preload code  
 D: Special high carbon steel with surface treatment, H: Stainless steel with surface treatment

Preload code  
 Accuracy code  
 Design serial number  
 Number of ball slides per rail

## Designation for Random-Matching Type

**NAH 25 AN S Z -L**

NAH: NH Model random-matching ball slide  
 NAS: NS Model random-matching ball slide  
 Size: 15, 20, 25, 30\*, 35\*  
 \* NH Model only  
 Ball slide shape code: AN, BN, AL, BL, EM, GM  
 Material code  
 No code: Special high carbon steel (NSK standard), S: Stainless steel

Option code  
 -L: Equipped with NSK K1-L  
 Preload code  
 No code: Fine clearance, Z: Slight preload, H: Medium preload

## Handling Precautions

1. Permissible operating temperature:  
 50°C maximum (80°C can be tolerated for brief periods)
2. Chemicals that should not contact NSK K1-L:  
 Do not leave NSK K1-L in organic solvents, such as hexane or other thinners that remove oil, or in anti-corrosion agents containing kerosene.

### Accuracy Code

	Preload assembly					Random-matching	
	Ultra precision	Super precision	High precision	Precision grade	Nomal grade	High grade	Normal grade
Without NSK K1-L	P3	P4	P5	P6	PN	PH	PC
NSK K1-L	L3	L4	L5	L6	LN	LH	LC

### Preload Code

Preloaded Assembly			Random-matching		
Fine clearance Z0	Slight preload Z1	Medium preload Z3	Fine clearance ZT	Slight preload ZZ	Medium preload ZH
0	1	3	T	Z	H

### Thickness of Single K1-L Unit<sup>2</sup>

Model No.	Size	Thickness (mm)				
		15	20	25	30	35
NH		5.3	5.3	5.8	6.0	6.5
NS		4.8	5.3	5.3	-	-

<sup>2</sup>Has the same dimensions as NSK K1. However, when using multiple K1-L units, the slider length will be longer than with multiple K1 units due to the shape of the case.

For more information about NSK products, please contact: [www.nsk.com](http://www.nsk.com)

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