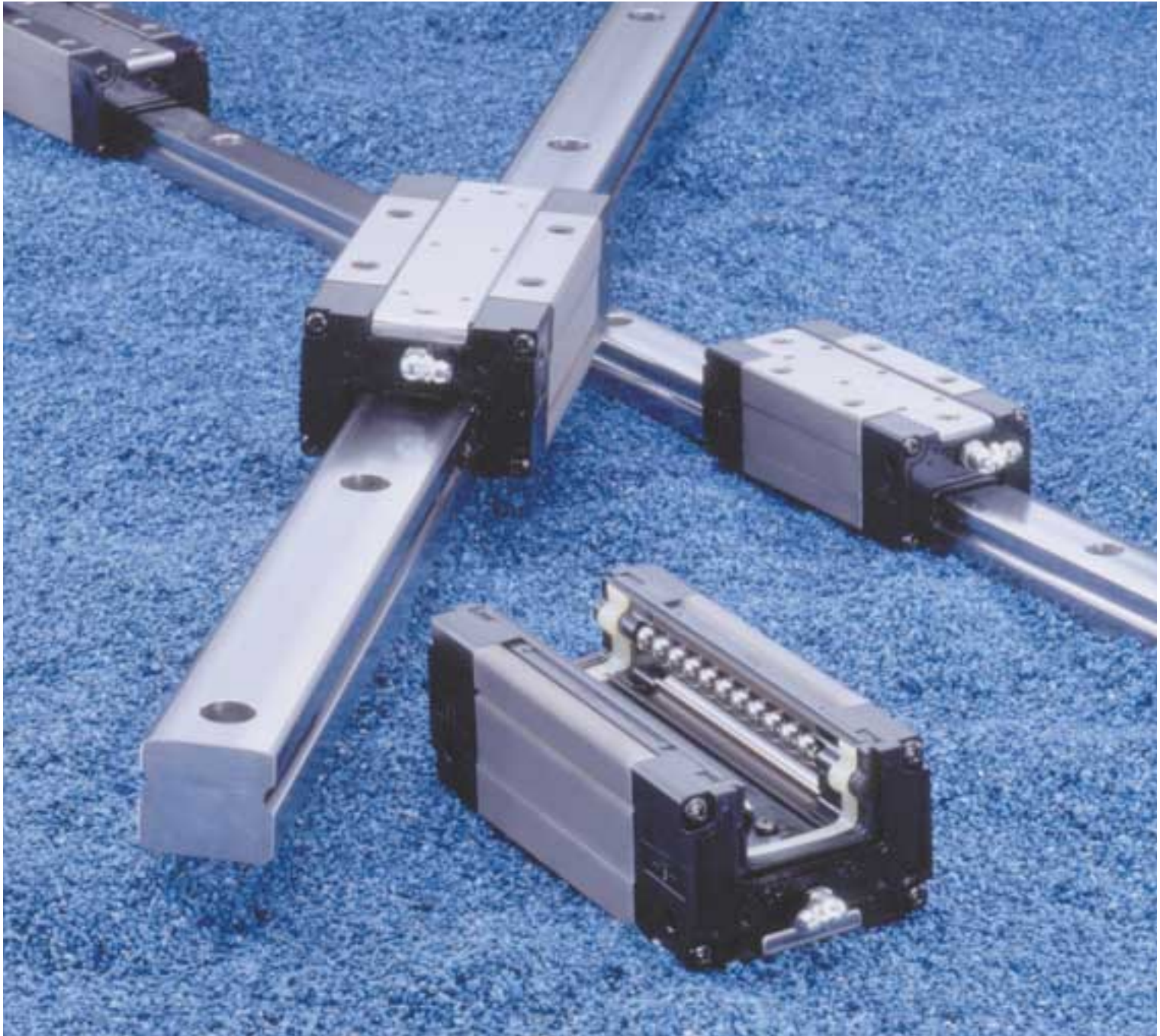


New Type of Rolling Element Linear Motion Bearing

Translide™

Innovative rolling element linear motion bearing achieves superior cost effectiveness. Standard features include NSK K1® lubrication unit and high performance seal; especially suitable for transport equipment.

Patent Pending



New Type of Rolling Element Linear Motion Bearing **Translide™**

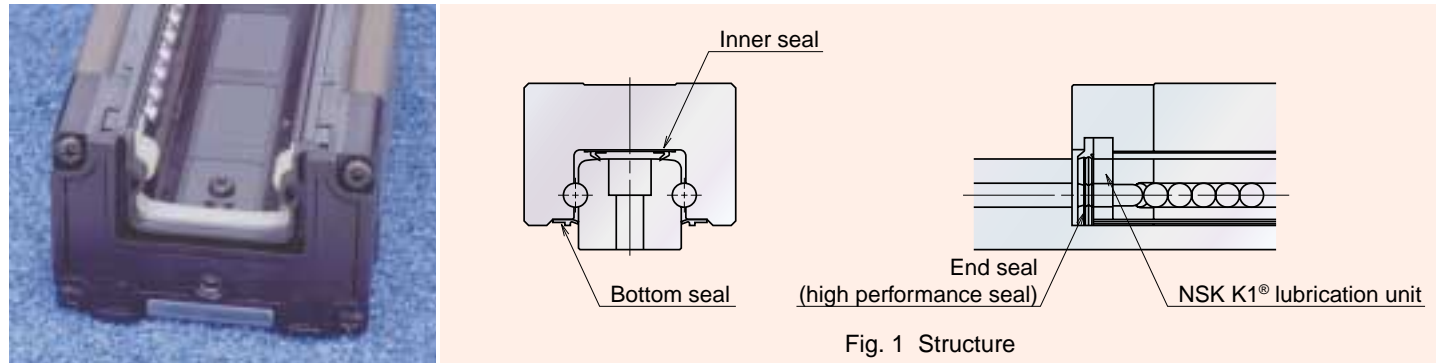
Translide™, a new type of rolling element linear motion bearing, is well suited to transportation equipment; for example, manufacturing lines of automobiles, automobile parts, and the like. It defies all traditional understanding within the industry in every aspect, and is surely a landmark in the progress of linear motion bearing technology.

1. Features

- **Inexpensive**..... Newly developed manufacturing process of rail, and design review of ball slide contribute to substantial cost reductions.
- **High capacity**..... Optimum ball diameter for higher capacity design.
- **High dust proof capability** Dust-tight high performance end seals, bottom seals, and inner seals are built-in as a standard feature.
- **Maintenance free**..... NSK K1® lubrication unit is equipped as a standard specification for long-term maintenance-free operation.

2. Structure

It has simple structure and is designed to enhance the dust proof capability. (Refer to Fig. 1)



Balls are glued to the tracks in order to take this picture.

3. Accuracy and Clearance

Accuracy grade: Normal grade for transportation **Running parallelism:** 100 μm or less **Clearance:** 60 μm or less

4. Specification Number

A specification number is a means of communication between the user and NSK for inquiries about the product.

Example **TS 30 2400 AN P 2 - KL S**

- Translide
- Model number
- Rail length (mm)
- Shape code of ball slide
- Preload code S: Clearance of 60 μm or less
- Accuracy grade KL: Normal grade for transportation
- Number of ball sliders assembled to a rail
- Surface treatment/Rails design code
 - P: No surface treatment/Counterbores on a rail top face (Type I)
 - V: No surface treatment/Tapped holes on a rail bottom face (Type II)
 - R: Fluoride low temperature chrome plating/Counterbores on the top face of rail (Type I)
 - W: Fluoride low temperature chrome plating/Tapped holes on the bottom face of rail (Type II)

Table 1 Dimensions

Model number	Assembly		Ball slide							Rail							Basic load rating					Ball diameter	Mass				
	Height $H^{+0.1}$	E	Width W	Length L	Tapped hole			L_1	K	Grease fitting			Width W_1	Height H_1	Pitch F	Type I	Type II	G	Max. length L_{max}^*	Dynamic $C(N)$	Static $C_0(N)$	Allowable static moment load (N·m)			D_w	Ball slide (kg)	Rail (kg/m)
					$d \times D \times h$	$M_2 \times \text{Pitch} \times l_2$	(Recommended)			M_{r0}	M_{p0}	M_{s0}															
TS25AN	40	4	48	100	35	35	$M6 \times 1 \times 9$	58	36	$M6 \times 0.75$	9.5	(14)	23	20	120	$7 \times 11 \times 9$	$M6 \times 1 \times 9$	20	4 000	16 700	20 000	246	168	168	5.5562	0.47	3.4
TS30AN	45	6.5	60	115	40	40	$M8 \times 1.25 \times 10$	70	38.5	$M6 \times 0.75$	9.5	(14)	28	25	160	$9 \times 14 \times 12$	$M8 \times 1.25 \times 12$	20	4 040	23 900	29 000	435	304	304	6.3500	0.77	5.3
TS35AN	55	8	70	135.8	50	50	$M8 \times 1.25 \times 12$	81.8	47	$M6 \times 0.75$	12	(14)	34	30	160	$9 \times 14 \times 12$	$M8 \times 1.25 \times 12$	20	4 040	35 900	40 900	748	489	489	7.9375	1.3	7.7

5. Application

Suitable for transporting equipment Automobile manufacturing, machine tools (loader/un-loader), tire manufacturing equipment, woodworking machine, automatic doors, and the like.

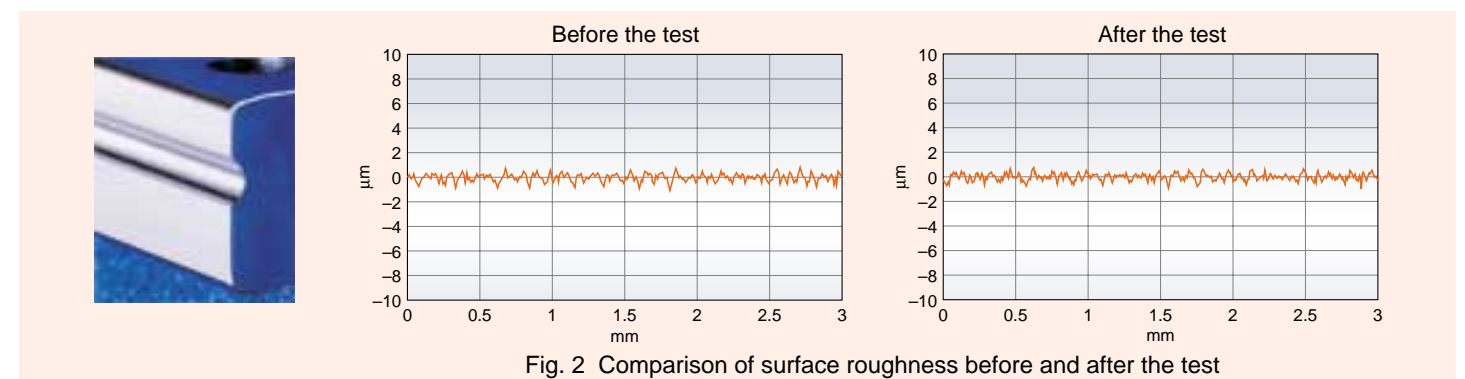
Precautions for using Translide™

Please follow the precautions below for your safety.

- Ambient temperature: 50°C maximum (80°C, instantaneous), Maximum speed: 150 m/min.
- Allowable mounting accuracy: Parallelism of two sets: 100 μm, Height variation of two sets: 500 μm/500 mm.
- Do not use one rail only. Never set rails downside up.
- Never use in an environment where degreasing solvents are present.
- Specify surface treatment for a Translide when it is exposed to water or cutting oil.
- Avoid any impact on end caps of a ball slide because they are made of resin.
- Balls fall out if a ball slide is removed from a rail. Consult with NSK if you need to remove a ball slide from a rail.

6. Result of Endurance Test

Deterioration in surface roughness is not observed on ball tracks of a rail after running the distance of the estimated life. (Refer to Fig. 2)



7. Dimensions

Dimensions are shown in Table 1.

