

# Long-Life Series DH/DS NSK Linear Guides™

**New!**

NSK's special heat treatment technology doubles the life of conventional products, delivering long-term equipment reliability.

Patent pending



## ■ Features

### 1. Double the life of standard linear guides

NSK's exclusive TF (Tough) technology heat treatment of DH/DS models achieves double the life of standard NH/NS models, improving machine reliability.

### 2. Fully dimensionally interchangeable with standard NH/NS models

Replacement is easy and doesn't require redesigning of equipment.

### 3. Support for a wide range of options

Continue to use options from standard NH/NS models, or add highly dust-resistant seals, lubrication units, or other customizations to match your needs.



## Long-Life Series DH/DS NSK Linear Guides™

DH/DS models are based on our proven, highly reliable standard NH/NS models that feature an optimized groove shape. Applying our special TF heat treatment achieves even longer life, expanding design possibilities for more compact and longer-lasting machines.

### ■ What is TF (Tough) Technology?

NSK's TF technology is an exclusive heat treatment developed and cultivated over years of experience with rolling bearings and materials. TF technology helps suppress surface flaking on the raceway. Deploying this technology in linear guides achieves double the life of our conventional models.

### ■ Lineup Features

Long-life DH models feature large ball diameters and higher load ratings, while DS models offer a compact, low-profile shape. Available sizes and slide shapes match those for standard NH/NS models, allowing for easy replacement.

### ■ Reference Number (Designation)

<b>Model</b> DH: DH Model DS: DS Model	<b>Size</b> DH: 15 to 65 DS: 15 to 35	<b>Rail length (mm)</b>	<b>Ball slide shape code</b> DH: AN, BN, AL, BL, EM, GM DS: AL, CL, EM, JM	<b>Material/surface treatment code</b> C: Special high-carbon steel (TF heat treatment) D: Special high-carbon steel (TF heat treatment) + surface treatment	<b>Preload code</b>	<b>Accuracy code</b>	<b>Design serial number</b>	<b>Ball slides per rail</b>

### ■ Options

DH/DS models support a wide variety of options, including the newly developed NSK K1-L lubrication unit, double seals, protectors, and surface treatments. Highly dust-resistant side seals with a multi-lip structure are also available.

### ■ Basic Dynamic Load Ratings

		Size								Unit: N
Model	Ball Slide Shape	15	20	25	30	35	45	55	65	
DH	High load	AN/AL	17 800	29 800	42 500	51 500	78 500	135 000	199 000	300 000
		EM				59 000				
	Ultra-high load	BN/BL/GM	22 800	38 000	57 500	77 000	102 000	164 000	243 000	390 000
DS	High load	AL/EM	14 100	19 700	33 000	48 000	66 500			
	Medium load	CL/JM	9 150	13 400	22 300	31 000	43 000			

Notes: DH/DS models have the same dimensions around the mounting, such as assembled linear guide height/width, mounting screw diameter/pitch etc., as their respective NH/NS standard counterparts. Refer to the Standard Series NH/NS models catalog for detailed dimensions.  
Please contact NSK for details on options and their supported ranges.

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

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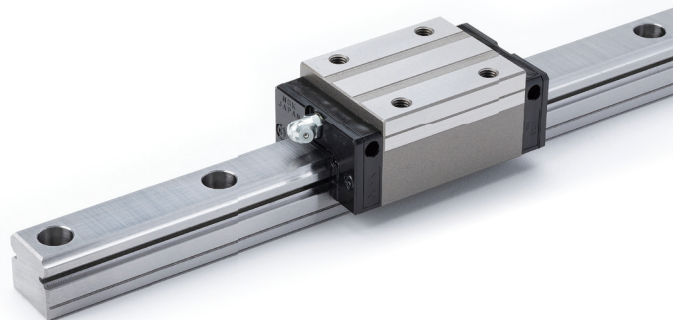
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Long-Life DH/DS models  
(With TF Technology)

Standard NH/NS models  
(Optimized Ball Groove  
Design)

Longer Life

NSK Linear Guides™



Accuracy code

	Ultra Precision	Super Precision	High Precision	Precision	Normal
Without NSK K1-L	P3	P4	P5	P6	PN
NSK K1-L	L3	L4	L5	L6	LN

Preload code

Fine Clearance Z0	Slight Preload Z1	Medium Preload Z3
0	1	3



NSK used environmentally friendly printing methods for this publication.