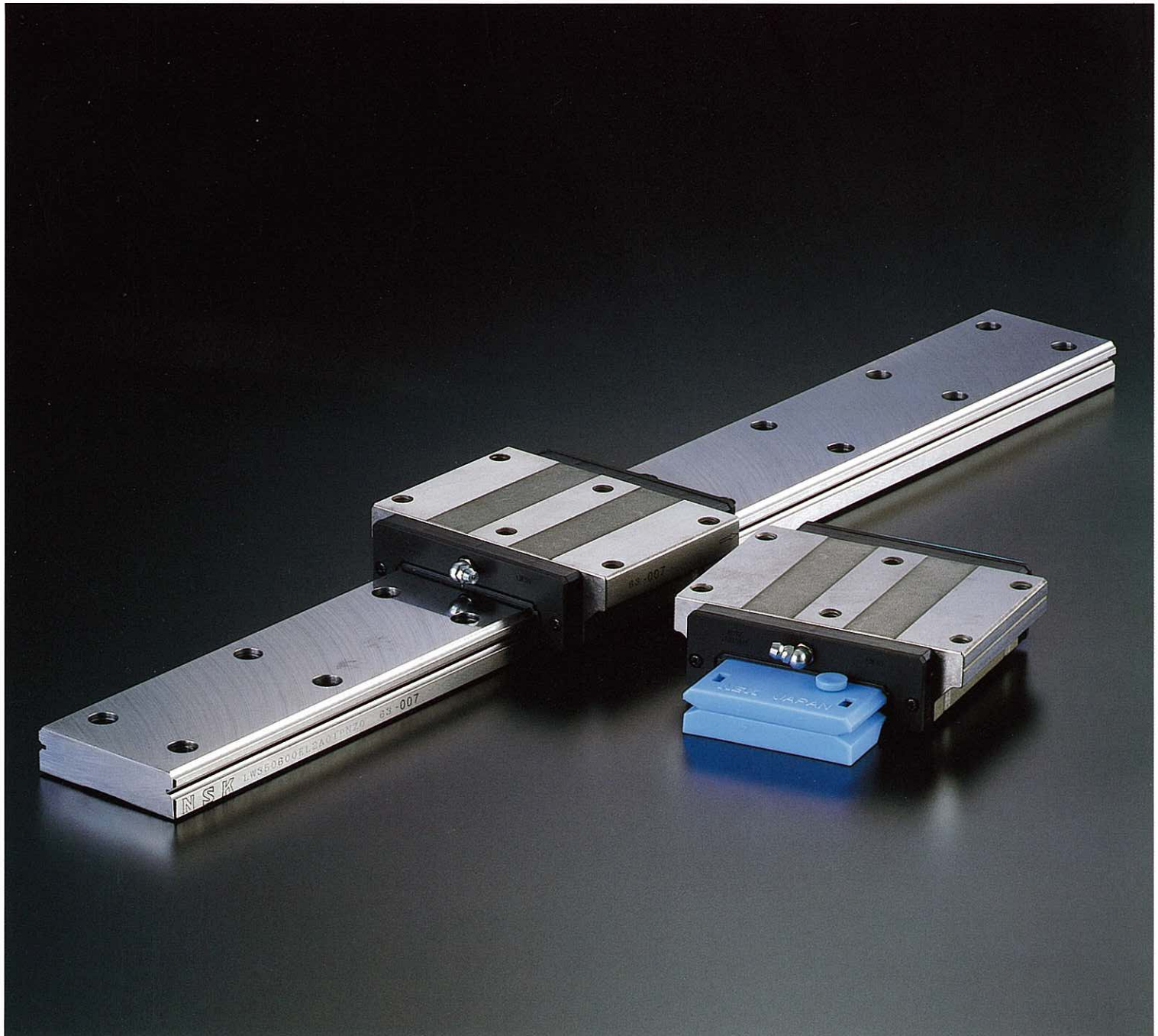


NSK LW Series Interchangeable Linear Guide Wide Rail Type

High moment rigidity and interchangeability
facilitate single-rail work.
Low profile, easy to handle, and quick delivery.



LW Series Interchangeable Linear Guide with Wide Rail Type

1. Features

- (1) Permits random matching of rail and ball slide for easy use.
- (2) Rail and ball slide are sold separately, allowing user to select required configuration.
- (3) Maintained in standard inventory to ensure quick delivery.
- (4) One rail can be used alone due to wide-range high moment rigidity.
- (5) 50° angle of contact for suitable rigidity toward the load in up/down direction.

2. Specification number

2-1 Rail and ball slide sold separately

Based on the interchangeability of rail and ball slide, the various types are shown separately.

Rail:

L1 W 27 0820

Interchangeable rail Rail length (mm)

Series code (LW) Size number

Ball slide:

LA W 27 EL

Interchangeable ball slide Ball slide shape code

Series code (LW) Size number

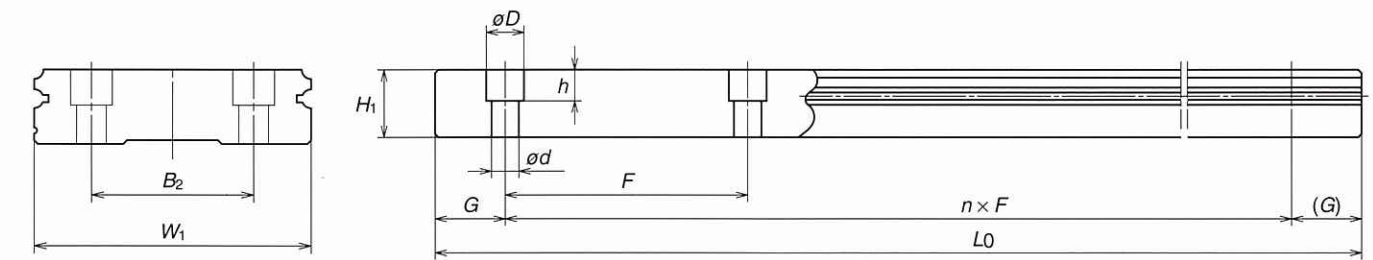
2-2 Combination of rail and ball slide for separate sales

The following shows a sample combination in which a ball slide is inserted into a rail, each selected at the customer's discretion. Accuracy is available in PC-grade only.

LW 27 2680 EL 1 - PC ZT

Series code Size number Rail length (mm) Ball slide shape code Preload code Accuracy grade code Number of ball slides per rail

Rail dimension table



Model No.	Standard length (in stock)	Rail dimension							Weight (kgf/m)
		Width W_1	Height H_1	Bolt pitch F	B_1	Bolt hole $d \times D \times h$	G (Standard)	Rail length L_0 max	
L1W17	430 670 990	33	8.7	40	18	4.5 × 7.5 × 5.3	15	1000	2.1
L1W21	430 680 980	37	10.5	50	22	4.5 × 7.5 × 5.3	15	1600	2.9
L1W27	460 640 820 1000	42	15	60	24	4.5 × 7.5 × 5.3	20	2000	4.7
L1W35	440 600 760 1000 1240	69	19	80	40	7 × 11 × 9	20	2400	9.6
L1W50	440 600 760 1000 1240	90	24	80	60	9 × 14 × 12	20	3000	15.8

Unit: mm

3. Maximum rail length

The following table shows maximum length of rail.

Size number	17	21	27	35	50
Maximum rail length	1000	1600	2000	2400	3000

4. Accuracy standards

Accuracy standards are shown in Tables 2 and 3 and Figures 1 and 2. These values are applied after ball slides are exchanged.

Figure 1

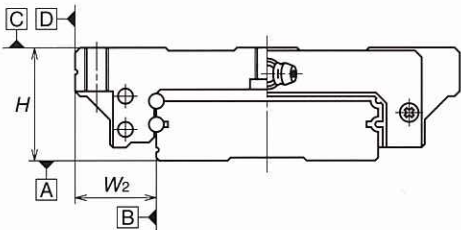


Figure 2

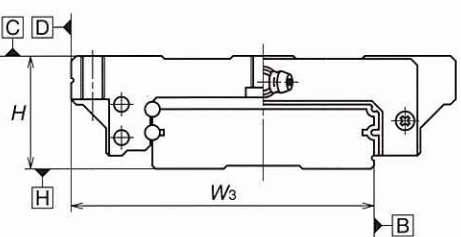


Table 2 Accuracy for LW interchangeable products

Item	Specification
Mounting height H Variation in mounting height H	± 30 60
Mounting width W2 or W3 Variation in mounting width W2 or W3	± 30 60
Running parallelism, faces A to C Running parallelism, faces B to D	Indicated in Table 3, Figures 1 and 2

Table 3 Running parallelism for LW interchangeable products

Travel (mm)	Parallelism	Travel (mm)	Parallelism
50 or less	12	630 ~ 800	22
50 ~ 80	13	800 ~ 1000	23
80 ~ 125	14	1000 ~ 1250	25
125 ~ 200	15	1250 ~ 1600	27
200 ~ 250	17	1600 ~ 2000	29
250 ~ 315	17	2000 ~ 2500	31
315 ~ 400	18	2500 ~ 3000	33
400 ~ 500	19		
500 ~ 630	20		

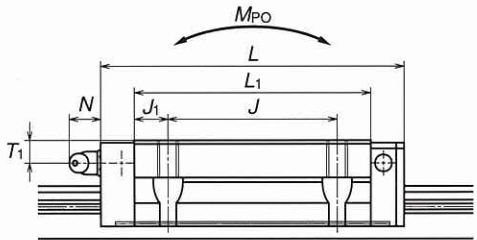
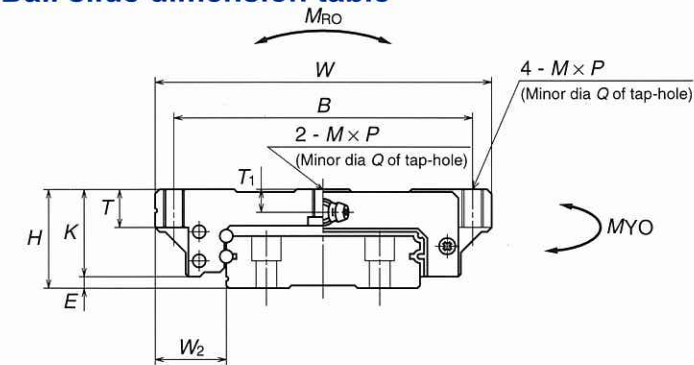
5. Preload and clearance

One version of preload setting giving precise clearance (ZT) is applied.

Table 4

Size number	Precise clearance (ZT)
LW17	-3 ~ 15
LW21	-3 ~ 15
LW27	-4 ~ 15
LW35	-5 ~ 15
LW50	-5 ~ 15

Ball slide dimension table



Unit: mm																						
Model No.	Assembly dimension					Ball slide dimension										Basic load rating					Weight (kgf)	
	Height <i>H</i>	<i>E</i>	<i>W</i> ₂	Width <i>W</i>	Length <i>L</i>	Tapped hole				<i>L</i> _i	<i>J</i> _i	<i>K</i>	<i>T</i>	Grease fitting			Dynamic <i>C</i> (kgf)	Static <i>Co</i> (kgf)	Static moment (kg•m)			
						<i>B</i> × <i>J</i>	Thread <i>M</i> × <i>P</i>	<i>T</i> _i	<i>Q</i>					Thread	<i>T</i> _i	<i>N</i>			<i>M</i> _{Ro}	<i>M</i> _{Po}		<i>M</i> _{Yo}
LAW17EL	17	2.5	13.5	60	51.4	53 × 26	M4 × 0.7	3.2	3.3	35	4.5	14.5	6	ø3 thru hole	4	3	430	930	11.6	3.7	3.4	0.2
LAW21EL	21	3	15.5	68	58.8	60 × 29	M5 × 0.8	3.7	4.4	41	6	18	8	M6 × 0.75	4.5	11	480	1080	15.0	4.8	4.5	0.3
LAW27EL	27	4	19	80	74	70 × 40	M6 × 1	6	5.3	56	8	23	10	M6 × 0.75	6	11	1000	2200	35.6	14.3	13.8	0.5
LAW35EL	35	4	25.5	120	108	107 × 60	M8 × 1.25	8	6.8	84	12	31	14	M6 × 0.75	8	11	2620	5340	149.5	54.4	53.3	1.5
LAW50EL	50	4.5	36	162	140.6	144 × 80	M10 × 1.5	14	8.6	108	14	45.5	18	PT 1/8	14	14	4840	9350	347.0	128.9	126.2	4.0

Unit: mm