



Dimensions of LH Series (Interchangeable rail)

Example of reference number

Regular rail (non-butting rail)

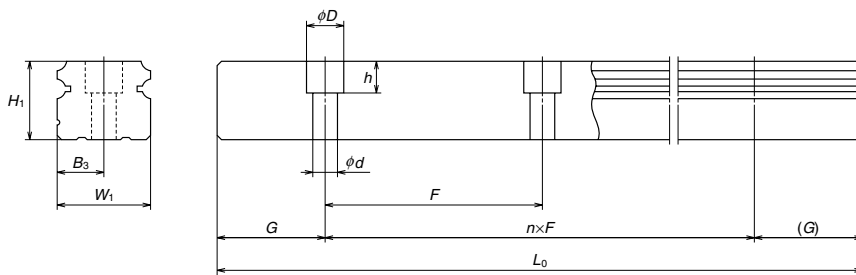
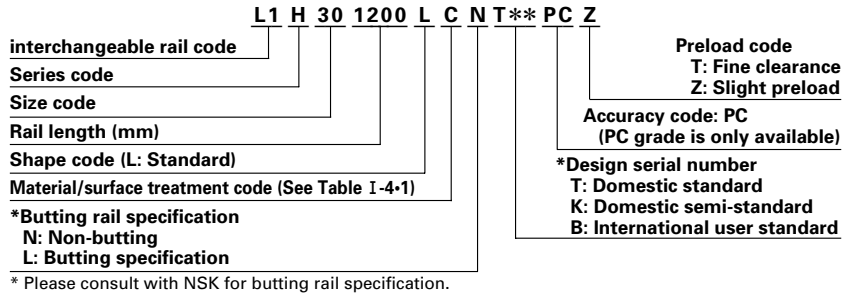
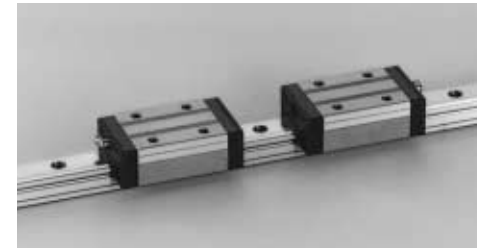


Table I-5-7

Model No.	Rail							Unit: mm
	Width W_1	Height H_1	Pitch F	Mounting bolt hole $d \times D \times h$	B_3	G Recommended	Max. length L_{MAX} () for stainless	Weight Rail (Kg / m)
L1H15	15	15	60	4.5×7.5×5.3	7.5	20	2000 (1800)	1.6
L1H20	20	18	60	6×9.5×8.5	10	20	3960 (3500)	2.6
L1H25	23	22	60	7×11×9	11.5	20	3960 (3500)	3.6
L1H30	28	26	80	9×14×12	14	20	4000 (3500)	5.2
L1H35	34	29	80	9×14×12	17	20	4000	7.2
L1H45	45	38	105	14×20×17	22.5	22.5	3990	12.3
L1H55	53	44	120	16×23×20	26.5	30	3960	16.9
L1H65	63	53	150	18×26×22	31.5	35	3900	24.3

G dimension is $1/2F^{0.5}$ for butting rail.

A-I-5.2 LS Series



(1) High self aligning capability (rolling direction)

Same as the DF combination in angular contact bearings, self-aligning capability is high because the cross point of the contact lines of balls and grooves comes inside, reducing moment rigidity. This increases the capacity to absorb the error of installation.

(2) High load carrying capacity to vertical direction

The contact angle is set at 50 degrees, increasing load carrying capacity as well as rigidity against the load in vertical direction.

(3) High resistance against impact load

The bottom ball groove is formed in gothic-arch and the center of the top and bottom grooves are offset as shown in Fig. I-5-6. The vertical load is usually carried by top 2 rows at where balls are contacting at two points. Because of this design, the bottom rows will carry the load when a large impact load is applied as shown in Fig. I-5-7. This assures high resistance to the impact load.

(4) Highly accurate

As shown in Fig. I-5-8, fixing the measuring rollers is simple thanks to the gothic-arch groove. This makes easy and accurate measuring of ball-grooves.

(5) Easy to handle, and designed with safety in mind.

Balls are retained in the retainer and do not fall out when the ball slide is withdrawn from the rail.

(6) Abundant models and sizes come in series.

Each series have several ball slide models, rendering the linear guide available for numerous uses. The LS Series also has standardized long stainless- steel rail (maximum: 3 500 mm).

(7) Interchangeable series is available (short delivery time)

The series enables random matching of rails and ball slides (interchangeability) for prompt delivery.

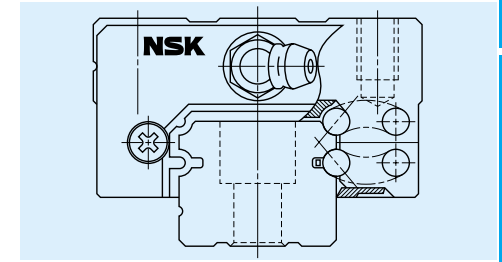


Fig. I-5-5 LS Series

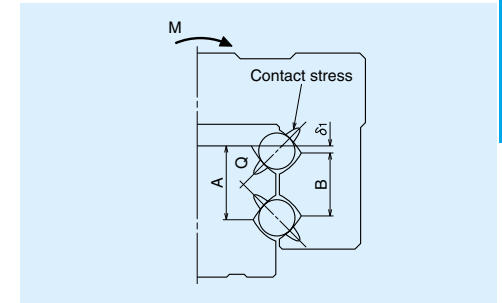


Fig. I-5-6 Enlarged illustration: Offset gothic-arch

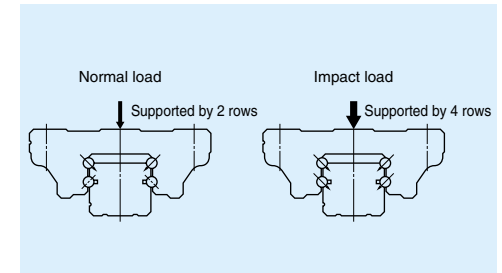


Fig. I-5-7 When load is applied

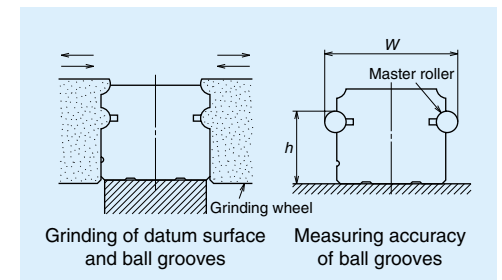


Fig. I-5-8 Rail-grinding and measuring

Dimensions of LS Series (Preloaded assembly)

LS-CL (Medium load type)

LS-AL (High load type)

LS 35 0840 AL C 2 -** PN 0 -II

Series	LS	Size	35	Rail length (mm)	0840	Ball slide shape code	AL	Material/surface treatment code (See Page A27)	C	Accuracy code (See table I-3-1 and I-4-2)	2	Number of ball slides per rail	2	Design serial number	**	Preload code 0: Z0 1: Z1 3: Z3(See page A23)	Material/surface treatment code (See Page A27)	K	Accuracy code (See table I-3-1 and I-4-2)	0	Number of ball slides per rail	0	Design serial number	-II
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* Please note that we assign the design number, and omit the last code (II) that indicates a use of two rails as a set to finalize the reference number as product identification.

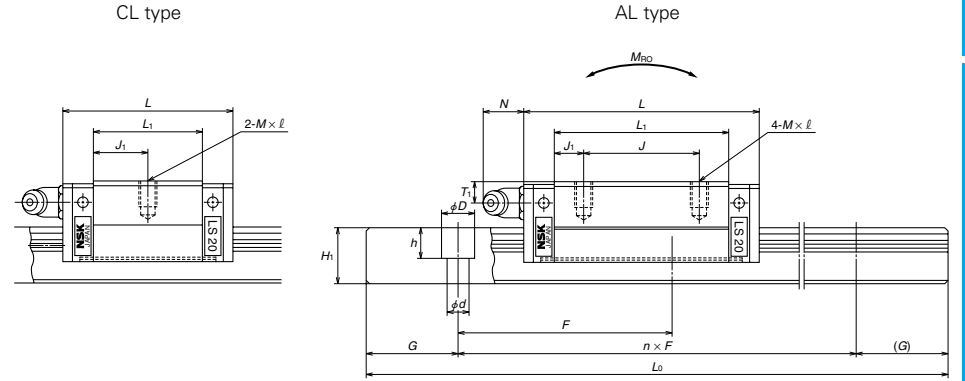
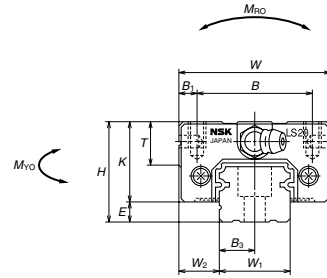


Table. I-5-8

Model No.	Assembly			Ball slide																					
	Height H	E	W ₂	Width W	Length L	Mounting tap hole					Grease fitting														
						B	J	M × pitch × ℓ	B ₁	L ₁	J ₁	K	T	Hole size	T ₁	N									
LS15CL	24	4.6	9.5	34	40.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
LS15AL	24	4.6	9.5	34	56.8	26	26	M4×0.7×6	4	23.6	11.8	19.4	10	φ 3	6	3	—	—	—	—	—	—	—	—	
LS20CL	28	6	11	42	47.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
LS20AL	28	6	11	42	65.2	32	32	M5×0.8×7	5	30	15	22	12	M6×0.75	5.5	11	—	—	—	—	—	—	—	—	—
LS25CL	33	7	12.5	48	59.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
LS25AL	33	7	12.5	48	81.6	35	35	M6×1×9	6.5	38	19	26	12	M6×0.75	7	11	—	—	—	—	—	—	—	—	—
LS30CL	42	9	16	60	67.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
LS30AL	42	9	16	60	96.4	40	40	M8×1.25×12	10	42	21	33	13	M6×0.75	8	11	—	—	—	—	—	—	—	—	—
LS35CL	48	10.5	18	70	77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
LS35AL	48	10.5	18	70	108	50	50	M8×1.25×12	10	49	24.5	37.5	14	M6×0.75	8.5	11	—	—	—	—	—	—	—	—	—

※Standard mounting hole of LS15 rail is for M3 bolts (Hole size: 3.5×6×4.5).
If you require the mounting hole for M4 bolts (Hole size: 4.5×7.5×5.3), please specify it when ordering.

Unit: mm

Rail							Basic load rating					Ball dia.	Weight	
Width W ₁	Height H ₁	Pitch F	Mounting bolt hole d × D × h	B ₃	G (recomm ended)	Max. length L _{0max} () for stainless	Dynamic C (N)	Static C ₀	Static moment M _{RO} M _{PO} M _{VO} (N·m)			D _w	Ball slide (kg)	Rail (kg/m)
15	12.5	60	※ 3.5×6×4.5 4.5×7.5×5.3	7.5	20	2000 (1700)	5400	9100	46	25	21	2.778	0.14	1.4
20	15.5	60	6×9.5×8.5	10	20	3960 (3500)	7900	13400	92	47	39	3.175	0.19	2.3
23	18	60	7×11×9	11.5	20	3960 (3500)	12700	20800	164	91	76	3.968	0.34	3.1
28	23	80	7×11×9	14	20	4000 (3500)	18700	29600	282	139	116	4.762	0.58	4.8
34	27.5	80	9×14×12	17	20	4000 (3500)	26000	40000	465	220	185	5.556	0.86	7.0

The basic dynamic load rating is a load that furnishes 50 km rating fatigue life; it is a vertical and constant load to the ball slide mounting surface.
When converting the basic dynamic load rating C to the dynamic load rating C₁₀₀ for 100 km rating fatigue life, divide the C by 1.26

LS-JL (Medium load type)
LS-EL (High load type)

LS 35 0840 EL C 2 -** PN 0 -II

Series
Size
Rail length (mm)
Ball slide shape code
Material/surface treatment code (See Page A27)
C: Standard (Special high carbon steel)
K: Stainless steel (Applicable only LH15-30)

*. II : Use two rails as a set.
Default: One rail use
Preload code 0: Z0
1: Z1
3: Z3(See page A23)
Accuracy code (See table I-3-1 and I-4-2)
* Design serial number
Number of ball slides per rail

* Please note that we assign the design number, and omit the last code (II) that indicates a use of two rails as a set to finalize the reference number as product identification.

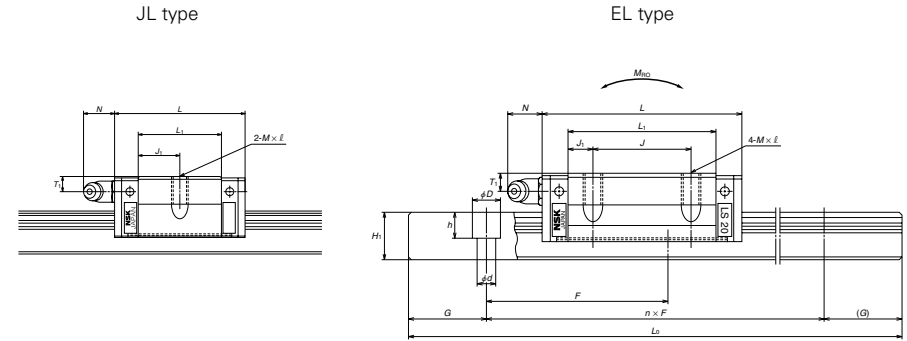
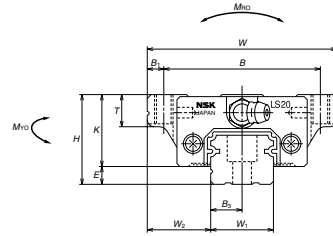


Table. I-5-9

Model No.	Assembly			Ball slide											
	Height H	E	W ₂	Width W	Length L	Mounting tap hole					Grease fitting				
						B	J	M × pitch × l	B ₁	L ₁	J ₁	K	T	Hole size	T ₁
LS15JL LS15EL	24	4.6	18.5	52	40.4 56.8	— 26	M5×0.8×8	5.5	23.6 40	11.8 7	19.4	8	φ3	6	3
LS20JL LS20EL	28	6	19.5	59	47.2 65.2	— 32	M6×1×10	5	30 48	15 8	22	10	M6×0.75	5.5	11
LS25JL LS25EL	33	7	25	73	59.6 81.6	— 35	M8×1.25×12	6.5	38 60	19 12.5	26	11 (12)	M6×0.75	7	11
LS30JL LS30EL	42	9	31	90	67.4 96.4	— 40	M10×1.5×18 (M10×1.5×15)	9	42 71	21 15.5	33	11 (15)	M6×0.75	8	11
LS35JL LS35EL	48	10.5	33	100	77 108	— 50	M10×1.5×20 (M10×1.5×15)	9	49 80	24.5 15	37.5	12 (15)	M6×0.75	8.5	11

※Standard mounting hole of LS15 rail is for M3 bolts (Hole size: 3.5×6×4.5).
If you require the mounting hole for M4 bolts (Hole size: 4.5×7.5×5.3), please specify it when ordering.

Unit: mm

Rail							Basic load rating					Ball dia.	Weight	
Width W ₁	Height H ₁	Pitch F	Mounting bolt hole d × D × h	B ₃	G (recomm ended)	Max. length L _{0max} () for stainless	Dynamic C (N)	Static C ₀	Static moment M _{RO} M _{PO} M _{VO} (N·m)			D _w	Ball slide (kg)	Rail (kg/m)
15	12.5	60	※ 3.5×6×4.5 4.5×7.5×5.3	7.5	20	2000 (1700)	5400	9100	46	25	21	2.778	0.17	1.4
20	15.5	60	6×9.5×8.5	10	20	3960 (3500)	7900	13400	92	47	39	3.175	0.24	2.3
23	18	60	7×11×9	11.5	20	3960 (3500)	12700	20800	164	91	76	3.968	0.44	3.1
28	23	80	7×11×9	14	20	4000 (3500)	18700	29600	282	139	116	4.762	0.76	4.8
34	27.5	80	9×14×12	17	20	4000 (3500)	26000	40000	465	220	185	5.556	1.2	7.0

The basic dynamic load rating is a load that furnishes 50 km rating fatigue life; it is a vertical and constant load to the ball slide mounting surface.
When converting the basic dynamic load rating C to the dynamic load rating C₁₀₀ for 100 km rating fatigue life, divide the C by 1.26

LS-KL (Medium load type)
LS-FL (High load type)

LS 35 0840 FL C 2 -** PN 0 -II

Series	LS	Size	35	Rail length (mm)	0840	Ball slide shape code	FL	Material/surface treatment code (See Page A27)	C	Accuracy code (See table I-3-1 and I-4-2)	2	Design serial number	**	Number of ball slides per rail	PN 0	Preload code	0: Z0 1: Z1 3: Z3(See page A23)	II
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* II: Use two rails as a set.
Default: One rail use

Please note that we assign the design number, and omit the last code (II) that indicates a use of two rails as a set to finalize the reference number as product identification.

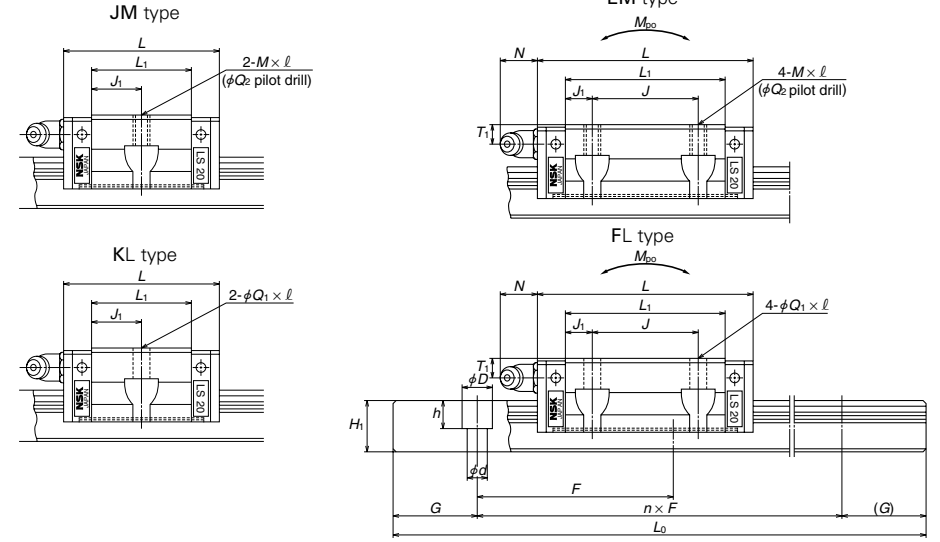
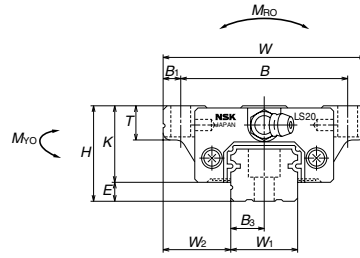


Table. I-5-10

Model No.	Assembly				Ball slide																																												
	Height	Width	Length	Mounting hole	Grease fitting	Ball slide																																											
						Hole size	T ₁	N																																									
LS15KL	24	4.6	18.5	52	40.4	41	26	4.5x7	4.4	5.5	23.6	11.8	8	phi 3	6	3																																	
LS15JM																	56.8	M5x0.8x7	4.4	5.5	40	7	19.4	8	phi 3	6	3																						
LS15FL																												47.2	4.5x7	5.3	30	15	22	10	M6x0.75	5.5	11												
LS15EM																																						65.2	M5x0.8x7	4.4	5	48	8	5.3	48	8	5.3	48	8
LS20KL																																																	
LS20JM	65.2	M6x1x9 (M6x1x9.5)	5.3	48	8	5.3	48	8	5.3	48	8																																						
LS20FL												59.6	5.5x9 (5.5x9.5)	6.8	38	19	26	11	M6x0.75	7	11																												
LS20EM																						33	7	25	73	60	35	7x10 (7x11.5)	6.8	60	12.5	6.8	60	12.5	6.8	60	12.5												
LS25KL	81.6	M8x1.25x10 (M8x1.25x11.5)	6.8	38	19	26	11	M6x0.75	7	11																																							
LS25JM											67.4	M10x1.5x12 (M10x1.5x14.5)	8.6	42	21	33	11	M6x0.75	8	11																													
LS25FL																					42																	9	31	90	72	40	9x12 (9x14.5)	8.6	71	15.5	8.6	71	15.5
LS25EM	96.4	M10x1.5x12 (M10x1.5x14.5)	8.6	42	21	33	11	M6x0.75	8	11																																							
LS30KL											67.4	M10x1.5x12 (M10x1.5x14.5)	8.6	42	21	33	11	M6x0.75	8	11																													
LS30JM																						48	10.5	33	100	82	50	9x13 (9x14.5)	8.6	49	24.5	8.6	49	24.5	8.6	49	24.5												
LS30FL	96.4	M10x1.5x12 (M10x1.5x14.5)	8.6	42	21	33	11	M6x0.75	8	11																																							
LS30EM											77	M10x1.5x13 (M10x1.5x14.5)	8.6	49	24.5	12	M6x0.75	8.5	11																														
LS35KL																				108	9x13 (9x14.5)																	8.6	80	15	37.5	12	M6x0.75	8.5	11				
LS35JM	96.4	M10x1.5x12 (M10x1.5x14.5)	8.6	42	21	33	11	M6x0.75	8	11																																							
LS35FL											77	M10x1.5x13 (M10x1.5x14.5)	8.6	49	24.5	12	M6x0.75	8.5	11																														
LS35EM																						108	9x13 (9x14.5)	8.6	80	15	37.5	12	M6x0.75	8.5	11																		

Standard mounting hole of LS15 rail is for M3 bolts (Hole size: 3.5x6x4.5).
If you require the mounting hole for M4 bolts (Hole size: 4.5x7.5x5.3), please specify it when ordering.

Rail							Basic load rating					Ball dia.	Weight	
Width	Height	Pitch	Mounting bolt hole	B ₃	G (recomm ended)	Max. length L _{0max} () for stainless	Dynamic C	Static C ₀	Static moment			D _w	Ball slide (kg)	Rail (kg/m)
W _i	H _i	F	d x D x h	B ₃	(recomm ended)	() for stainless	(N)	(N)	M _{Ro}	M _{FO}	M _{VO}	D _w	Ball slide (kg)	Rail (kg/m)
15	12.5	60	* 3.5x6x4.5 4.5x7.5x5.3	7.5	20	2000 (1700)	5400	9100	46	25	21	2.778	0.17	1.4
20	15.5	60	6x9.5x8.5	10	20	3960 (3500)	7900	13400	92	47	39	3.175	0.24	2.3
23	18	60	7x11x9	11.5	20	3960 (3500)	12700	20800	164	91	76	3.968	0.44	3.1
28	23	80	7x11x9	14	20	4000 (3500)	18700	29600	282	139	116	4.762	0.76	4.8
34	27.5	80	9x14x12	17	20	4000 (3500)	26000	40000	465	220	185	5.556	1.2	7

The basic dynamic load rating is a load that furnishes 50 km rating fatigue life; it is a vertical and constant load to the ball slide mounting surface.
When converting the basic dynamic load rating C to the dynamic load rating C₁₀₀ for 100 km rating fatigue life, divide the C by 1.26

Dimensions of LS Series (Interchangeable ball slide)

LAS-CL (Medium load type)

LAS-AL (High load type)

• See Page A27 Reference Number of each interchangeable part.

LA S 30 AL S Z - K

Interchangeable ball slide code

Series

Size

Ball slide shape code (See Table I-2-2)

Material code
Default Standard material S: Stainless steel

Option code

- K: Equipped with standard NSK K1
- F: Fluoride low temperature chrome platin + standard grease
- F50: Fluoride low temperature chrome platin + LG2 grease

Preload code

- Default: Fine clearance
- Z: Slight preload

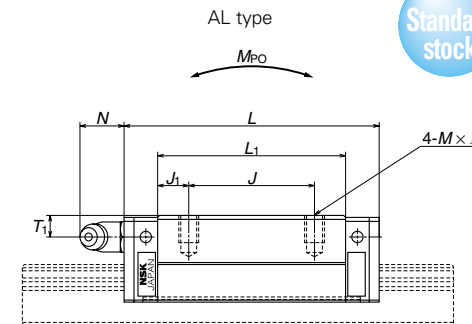
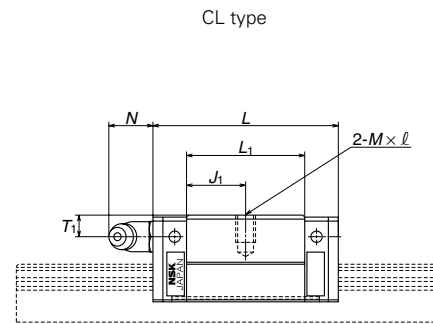
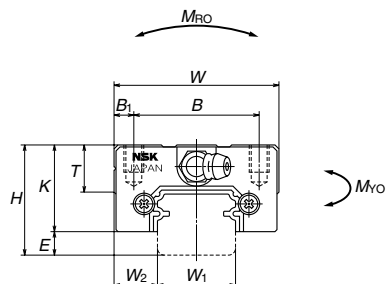


Table. I-5-11

Model No.	Assembly			Ball slide									
	Height <i>H</i>	<i>E</i>	<i>W</i> ₂	Width <i>W</i>	Length <i>L</i>	Mounting tap hole			<i>B</i> ₁	<i>L</i> ₁	<i>J</i> ₁	<i>K</i>	<i>T</i>
						<i>B</i>	<i>J</i>	<i>M</i> × pitch × <i>l</i>					
LAS15CL	24	4.6	9.5	34	40.4	—	—	M4×0.7×6	4	23.6	11.8	19.4	10
LAS15AL					56.8	26	26			40	7		
LAS20CL	28	6	11	42	47.2	—	—	M5×0.8×7	5	30	15	22	12
LAS20AL					65.2	32	32			48	8		
LAS25CL	33	7	12.5	48	59.6	—	—	M6×1×9	6.5	38	19	26	12
LAS25AL					81.6	35	35			60	12.5		
LAS30CL	42	9	16	60	67.4	—	—	M8×1.25×12	10	42	21	33	13
LAS30AL					96.4	40	40			71	15.5		
LAS35CL	48	10.5	18	70	77	—	—	M8×1.25×12	10	49	24.5	37.5	14
LAS35AL					108	50	50			80	15		

Unit: mm

Grease fitting			Basic load rating					Ball dia. <i>D</i> _w	Weight Ball slide (kg)
			Dynamic <i>C</i>	Static <i>C</i> ₀	Static moment				
Hole size	<i>T</i> ₁	<i>N</i>	(N)			(N·m)			
φ 3	6	3	5400	9100	46	25	21	2.778	0.14
			8350	16900	85	77	65		0.20
M6×0.75	5.5	11	7900	13400	92	47	39	3.175	0.19
			11700	23500	160	133	111		0.28
M6×0.75	7	11	12700	20800	164	91	76	3.968	0.34
			18800	36500	286	258	217		0.51
M6×0.75	8	11	18700	29600	282	139	116	4.762	0.58
			28800	55000	520	435	365		0.85
M6×0.75	8.5	11	26000	40000	465	220	185	5.556	0.86
			40000	74500	865	695	580		1.3

The basic dynamic load rating is a load that furnishes 50 km rating fatigue life; it is a vertical and constant load to the ball slide mounting surface.
When converting the basic dynamic load rating C to the dynamic load rating C₁₀₀ for 100 km rating fatigue life, divide the C by 1.26

LAS-EL (High load type)
LAS-EM

• See Page A27 Reference Number of each interchangeable part.

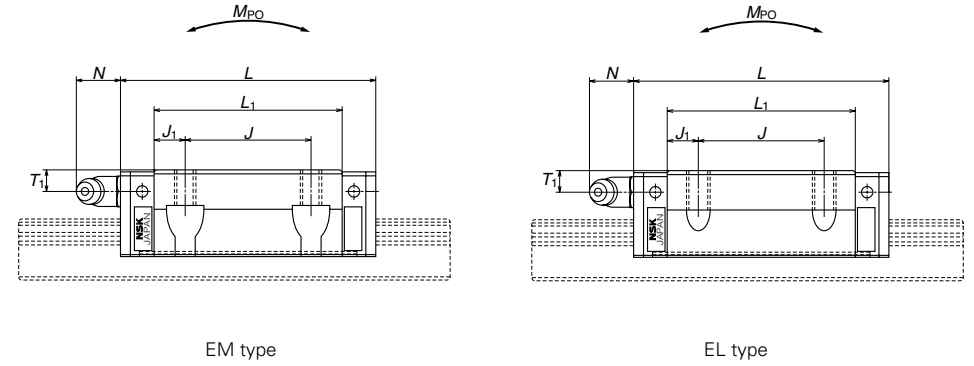
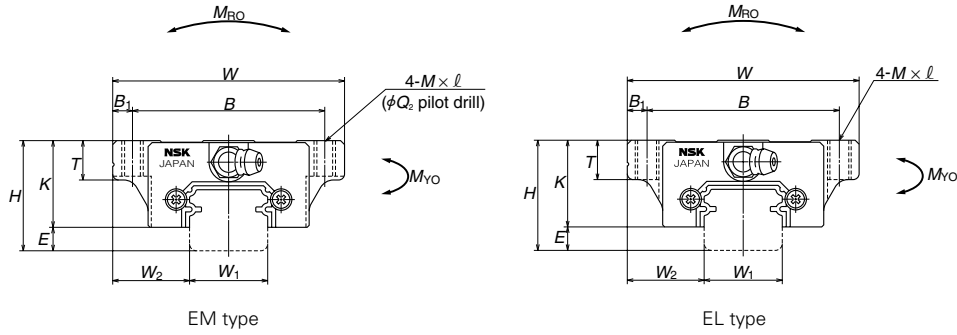
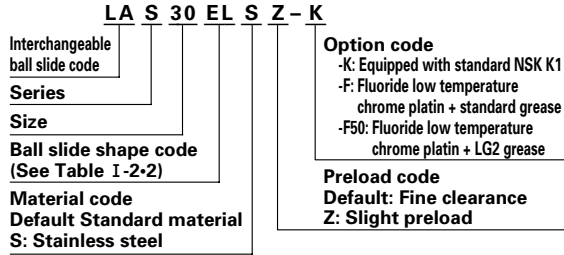


Table. I-5-12

Model No.	Assembly			Ball slide										
	Height H	E	W ₂	Width W	Length L	Mounting tap hole				B ₁	L ₁	J ₁	K	T
						B	J	M × pitch × l	Q ₂					
LAS15EL LAS15EM	24	4.6	18.5	52	56.8	41	26	M5×0.8×8	—	5.5	40	7	19.4	8
LAS20EL LAS20EM	28	6	19.5	59	65.2	49	32	M6×1×10 M6×1×9 (M6×1×9.5)	— 5.3	5	48	8	22	10
LAS25EL LAS25EM	33	7	25	73	81.6	60	35	M8×1.25×12 M8×1.25×10 (M8×1.25×11.5)	— 6.8	6.5	60	12.5	26	11
LAS30EL LAS30EM	42	9	31	90	96.4	72	40	M10×1.5×18 (M10×1.5×15) M10×1.5×12 (M10×1.5×14.5)	— 8.6	9	71	15.5	33	11 (15)
LAS35EL LAS35EM	48	10.5	33	100	108	82	50	M10×1.5×20 (M10×1.5×15) M10×1.5×13 (M10×1.5×14.5)	— 8.6	9	80	15	37.5	12 (15)

Dimensions in parenthesis are for items made of stainless steel.

Grease fitting			Basic load rating					Ball dia.	Weight
Hole size	T ₁	N	Dynamic	Static	Static moment			D _w	Ball slide (kg)
			C	C ₀	M _{FO}	M _{PO}	M _{YO}		
φ 3	6	3	8350	16900	85	77	65	2.778	0.26
M6×0.75	5.5	11	11700	23500	160	133	111	3.175	0.35
M6×0.75	7	11	18800	36500	286	258	217	3.968	0.66
M6×0.75	8	11	28800	55000	520	435	365	4.762	1.2
M6×0.75	8.5	11	40000	74500	865	695	580	5.556	1.7

The basic dynamic load rating is a load that furnishes 50 km rating fatigue life; it is a vertical and constant load to the ball slide mounting surface. When converting the basic dynamic load rating C to the dynamic load rating C₁₀₀ for 100 km rating fatigue life, divide the C by 1.26



LAS-KL (Medium load type)
LAS-FL (High load type)

• See Page A27 Reference Number of each interchangeable part.

Interchangeable ball slide code	LA	S	30	FL	S	Z	-	K
Series								
Size								
Ball slide shape code (See Table I-2•2)								
Material code								
Default Standard material	S: Stainless steel							
Option code	-K: Equipped with standard NSK K1 -F: Fluoride low temperature chrome platin + standard grease -F50: Fluoride low temperature chrome platin + LG2 grease							
Preload code	Default: Fine clearance Z: Slight preload							

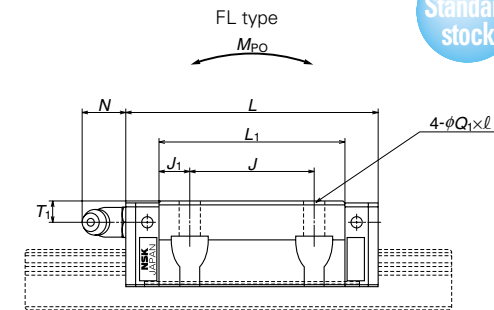
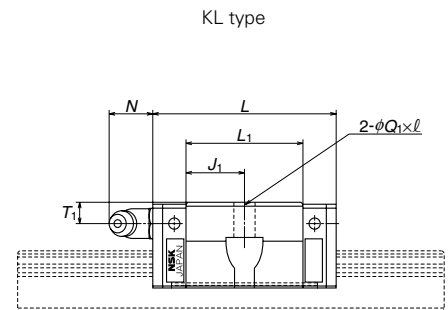
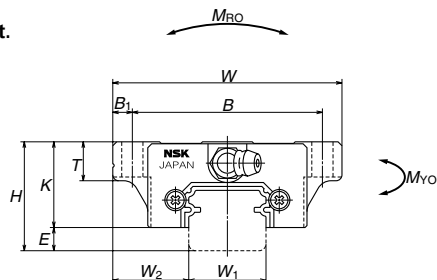


Table I-5-13

Model No.	Assembly			Ball slide									
	Height H	E	W ₂	Width W	Length L	Mounting hole			B ₁	L ₁	J ₁	K	T
						B	J	Q ₁ ×ℓ					
LAS15KL	24	4.6	18.5	52	40.4	—	—	4.5×7	5.5	23.6	11.8	19.4	8
LAS15FL					56.8	41	26			40	7		
LAS20KL	28	6	19.5	59	47.2	—	—	5.5×9	5	30	15	22	10
LAS20FL					65.2	49	32	(5.5×9.5)		48	8		
LAS25KL	33	7	25	73	59.6	—	—	7×10	6.5	38	19	26	11
LAS25FL					81.6	60	35	(7×11.5)		60	12.5		(12)
LAS30KL	42	9	31	90	67.4	—	—	9×12	9	42	21	33	11
LAS30FL					96.4	72	40	(9×14.5)		71	15.5		(15)
LAS35KL	48	10.5	33	100	77	—	—	9×13	9	49	24.5	37.5	12
LAS35FL					108	82	50	(9×14.5)		80	15		(15)

Dimensions in parenthesis are for items made of stainless steel.

Unit: mm

Grease fitting			Basic load rating					Ball dia. D _w	Weight Ball slide (kg)
			Dynamic C	Static C ₀	Static moment				
Hole size	T ₁	N	(N)	(N)	M _{R0}	M _{P0}	M _{Y0}	(N · m)	
φ 3	6	3	5400	9100	46	25	21	2.778	
			8350	16900	85	77	65		
M6×0.75	5.5	11	7900	13400	92	47	39	3.175	
			11700	23500	160	133	111		
M6×0.75	7	11	12700	20800	164	91	76	3.968	
			18800	36500	286	258	217		
M6×0.75	8	11	18700	29600	282	139	116	4.762	
			28800	55000	520	435	365		
M6×0.75	8.5	11	26000	40000	465	220	185	5.556	
			40000	74500	865	695	580		

The basic dynamic load rating is a load that furnishes 50 km rating fatigue life; it is a vertical and constant load to the ball slide mounting surface.

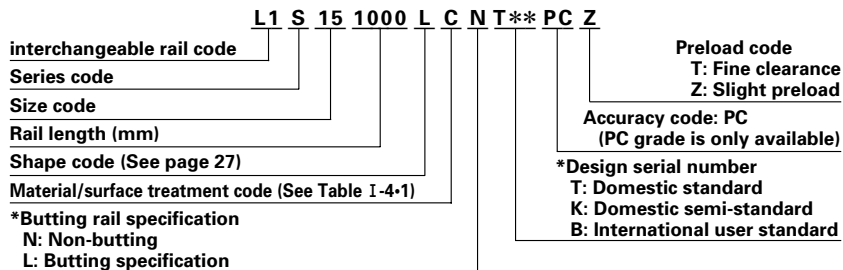
When converting the basic dynamic load rating C to the dynamic load rating C₁₀₀ for 100 km rating fatigue life, divide the C by 1.26

Dimensions of LS Series (Interchangeable rail)



Example of reference number

Regular rail (non-butting rail)



* Please consult with NSK for butting rail specification.

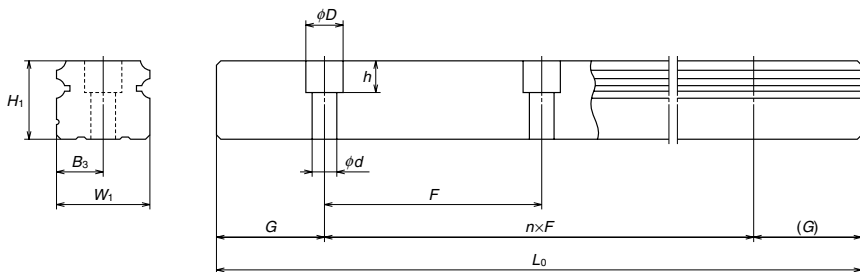


Table I-5-14

Unit: mm

Model No.	Rail							Weight Rail (Kg / m)
	Width W_1	Height H_1	Pitch F	Mounting bolt hole $d \times D \times h$	B_3	G Recommended	Max. length L_{OMAX} () for stainless	
L1S15	15	12.5	60	3.5×6×4.5* 4.5×7.5×5.3	7.5	20	2000 (1700)	1.4
L1S20	20	15.5	60	6×9.5×8.5	10	20	3960 (3500)	2.3
L1S25	23	18	60	7×11×9	11.5	20	3960 (3500)	3.1
L1S30	28	23	80	7×11×9	14	20	4000 (3500)	4.8
L1S35	34	27.5	80	9×14×12	17	20	4000 (3500)	7.0

G dimension is $1/2F^{0.5}$ for butting rail.

* Standard mounting hole of LS15 rail is for M3 bolts (Hole size: 3.5×6×4.5).

If you require the mounting hole for M4 bolts (Hole size: 4.5×7.5×5.3), please specify it when ordering.

A-I-5.3 LA Series

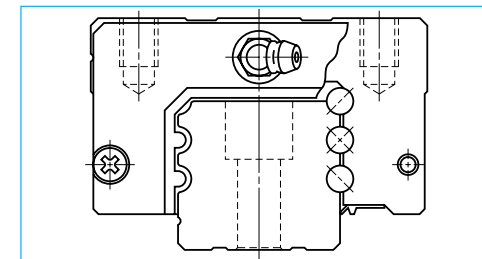


Fig. I-5-9 LA Series

(1) High rigidity and high load carrying capacity

A set of three ball grooves is made on both sides. This contributes to the increased rigidity and load carrying capacity. The top and bottom groove are formed in the circular arc with a closer radius of ball, which ensures great rigidity and load carrying capacity. With the gothic-arch center groove, rigidity and load carrying capacity are further increased.

(2) Moderate friction

A well-balanced combination of 2-point contacts at the top and bottom grooves and 4 points contact at the center groove provides moderate friction while ensuring rigidity by appropriate preload.

(3) Load distribution four directions

Contact angle is set at 45 degrees in all grooves, dispersing the load to four rows irrespective of load direction. This realizes equal rigidity and load carrying capacity in vertical and lateral directions and provides well-balanced design.

(4) Strong against shock load

Load from any direction, vertical and lateral, is received by four rows at all times. The number of the row which receives the load is larger than in other linear guides, making this series stronger against shock load.

(5) Highly accurate

Fixing the measuring rollers is easy thanks to the gothic-arch groove. Ball-groove measuring is accurate and simple. This benefits a highly precise and stable manufacturing.

(6) The dust protection design

The rail's cross section is designed as simple as possible. Furthermore, the improved seal enhances the sealing function. Inner seal is available as an option.

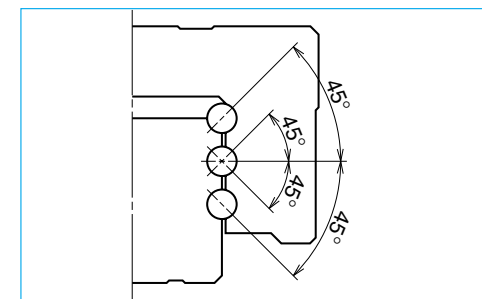


Fig. I-5-10 Super rigidity design

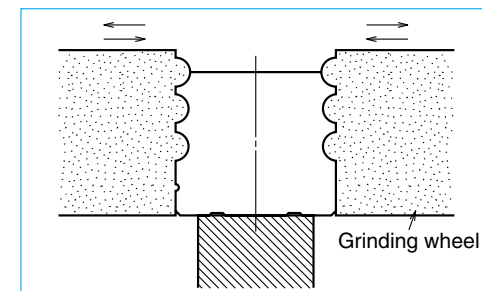


Fig. I-5-11 Rail grinding

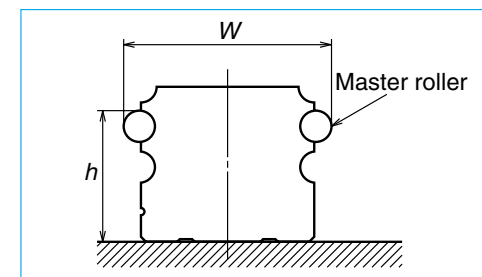


Fig. I-5-12 Measuring groove accuracy