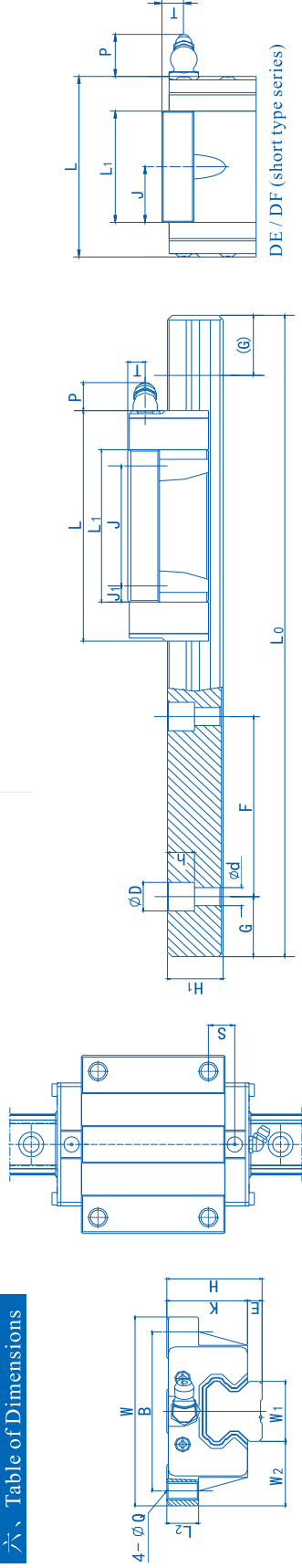


六、Table of Dimensions

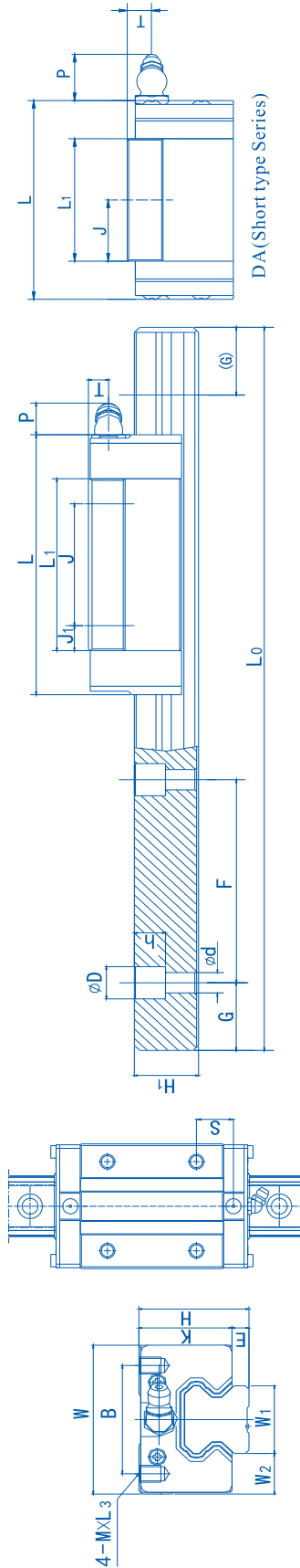


LGS series products dimension table Type:EA(screw type slide) FA(smooth hole type slide) HEA(screw type slide extra length) HFA(smooth hole type slide extra length) DE/DF(Short type Series)

Model No.	Assembly Dimensions			Slide Dimensions										Rail Dimensions					Basic Load Rating			Weight		
	Height H	E	W ₂	Width W	B×J	Length of Slider L	L ₁	J ₁	P	T	S	K	Mounting Hole Q×L ₂	Rail Width W ₁	H ₁ ¹	H ₁ ²	Pitch F	Mounting Bolt d×D×h	Reference G	Maximum Length L ₀ max	Dynamic Load C (kgf)	Static Load C ₀ (kgf)	Slide Guide (kg)	Guide (kg/m)
LGS15DE	24	4	16	47	38×12.75	47.5	25.5	—	6	4.5	16.25	20	M5×7	15	13.6	—	60	4.5×7.5×6	20	2400	720	980	0.14	1.3
LGS15EA					38×30	62.5	40.5	5.25			8.75										1010	1600	0.2	
LGS20DE					53×15.25	55.5	30.5	—			19.75		M6×9.5								1190	1500	0.26	
LGS20DF													φ6×9.5											
LGS20EA	30	4.6	21.5	63		75.5	50.5	5.25	10	5.5	9.75	25.4	M6×10	20	19	19.2	60	6×9.5×8.5	20	4000	1740	2580	0.42	2.3
LGS20FA					53×40								φ6×10											
LGS20HEA						91.4	66.4	13.2			17.7		M6×10								2100	3450	0.54	
LGS20HFA													φ6×10											
LGS25DE					57×19.1	64.2	38.2	—			24.1		M8×10								1920	2470	0.4	
LGS25DF													φ7×10											
LGS25EA	36	6	23.5	70		84.5	59.5	7.25	10	7	12.25	30	M8×10	23	22	22.2	60	7×11×9	20	4000	2560	3700	0.63	3.1
LGS25FA					57×45								φ7×10											
LGS25HEA						108.3	83.3	19.15			24.15		M8×10								3270	5250	0.88	
LGS25HFA													φ7×10											
LGS30EA						99	72	10			15.25		M10×12								3550	5060	1.06	4.8
LGS30FA	42	7	31	90	72×52				10	6.5		35	φ9×12	28	27.5	27.7	80	9×14×12	20	4000	4350	6750	1.35	
LGS30HEA						120	93	20.5			25.75		M10×12											
LGS30HFA													φ9×12											
LGS35EA						109.6	80.6	9.3			14.8		M10×13								4700	6600	1.33	
LGS35FA	48	7.5	33	100	82×62				10	8		40.5	φ9×13	34	30.3	30.6	80	9×14×12	20	4000	5800	8800	1.78	6.4
LGS35HEA						134.8	105.8	21.9			27.4		M10×13											
LGS35HFA													φ9×13											
LGS45EA						135	99	9.5			17		M12×15								7600	10300	2.91	
LGS45FA	60	10	37.5	120	100×80				15	10.5		50	φ11×15	45	39	39.3	105	14×20×17	22.5	4000	9300	13800	3.78	10.8
LGS45HEA						167	131	25.5			33		M12×15											
LGS45HFA													φ11×15											

Note: H₁¹ is the size without the protection zone plate; H₁² is the size with a protective belt plate.

In table the dynamic load rating C is basis for 50km. As a reference to 100km, please set the table value divided by 1.26



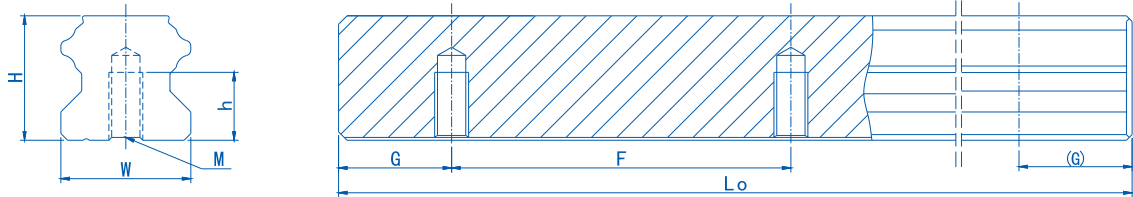
LGS series products dimension table
HAN(rectangle slide type extra thick and extra length) Type:AA(rectangle slide types) AN(rectangle slide type extra thick) HAA(rectangle slide type extra length) DA(Short type Series)

Unit:mm

Model No.		Assembly Dimensions			Slide Dimensions										Rail Dimensions					Basic Load Rating		Weight														
		Height H	E	W2	Width W	B×J	Length of Slider L	L1	J1	P	T	S	K	Mounting Hole Q×L2	Rail Width W1	H1 ¹	H1 ²	Pitch F	Mounting Bolt Hole d×D×h	Reference G	Maximum Load Length Lmax	Dynamic Load C (kgf)	Static Load C0 (kgf)	Slide Guide (kg)	Guide (kg/m)											
LGS15DA		24	4	9.5	34	26×12.75	47.5	25.5	—	6	4.5	16.25	20	M4×5	15	13.6	—	60	4.5×7.5×6	20	2400	720	980	0.11	1.3											
LGS15AA		28				26×26	62.5	40.5	7.25		8.5	10.75														24	1010	1600	0.19							
LGS15AN																																				
LGS20DA		30	4.6	12	44	32×15.25	55.5	30.5	—	10	5.5	19.75	25.4	M5×6	20	19	19.2	60	6×9.5×8.5	20	4000	1190	1500	0.2												
LGS20AA						32×36	75.5	50.5	7.25		11.75	24.1														30	34	1920	2470	0.3						
LGS20HAA						32×50	91.4	66.4	8.2		12.7	11														34	3700	3450	0.37							
LGS25DA		36				35×19.1	64.2	38.2	—	10	7	21.65	30	M6×7.5	23	22	22.2	60	7×11×9	20	4000	2560	3700	0.48	3.1											
LGS25DN		40							11		17.25	34														30	34	3270	5250	0.66						
LGS25AA		36				35×35	84.5	59.5	12.25		7	21.65														34	30	34	3270	5250	0.78					
LGS25AN		40																																		
LGS25HAA		36				35×50	108.3	83.3	16.65	10	7	21.65	30	M6×7.5	28	27.5	27.7	80	9×14×12	20	4000	3550	5060	0.7	4.8											
LGS25HAN		40							11		17.25	34														30	34	4350	6750	1.18						
LGS30AA		42				40×40	99	72	16		6.5	21.25														35	M8×8									
LGS30AN		45	7	16	60	40×40	99	72	16	10	9.5	21.25	38	M8×10	28	27.5	27.7	80	9×14×12	20	4000	4350	6750	1.18												
LGS30HAA		42									6.5	21.75														35	M8×8									
LGS30HAN		45				40×60	120	93	16.5		9.5	21.75	38	M8×10																						
LGS35AA		48				50×50	109.6	80.6	15.3	10	8	20.8	40.5	M8×9	34	30.3	30.6	80	9×14×12	20	4000	4700	6600	0.98												
LGS35AN		55	7.5	18	70			15	47.5		47.5	M8×12																								
LGS35HAA		48				50×72	134.8	105.8	16.9		8	22.4	40.5	M8×9																						
LGS35HAN		55									15	47.5	M8×12																							
LGS45AN		70	10	20.5	86	60×60	135	99	19.5	15	20.5	27	60	M10×17	45	39	39.3	105	14×20×17	22.5	4000	7600	10300	2.92	10.8											
LGS45HAN						60×80	167	131	25.5		33																									

Note: H₁¹ is the size without the protection zone plate; H₁² is the size with a protective belt plate.

In table the dynamic load rating C is basis for 50km. As a reference to 100km, please set the table value divided by 1.26



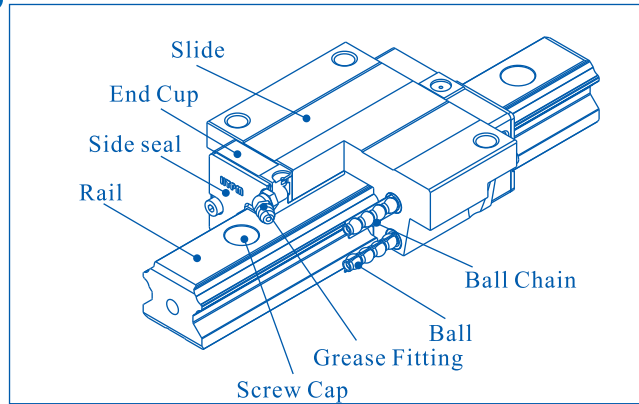
Dimension Table of the Mounting from Bottom of LGS Series Rail Guides

Unit:mm

Model No.	Rail Dimensions							Weight Guide (kg/m)
	Width W	Height H	M	h	Pitch F	Reference G	Maximum Length L _{max}	
LGS15T	15	13.6	M5	8	60	20	2400	1.3
LGS20T	20	19	M6	10.2	60	20	4000	2.4
LGS25T	23	22	M6	12	60	20	4000	3.3
LGS30T	28	27.5	M8	15	80	20	4000	5
LGS35T	34	30.3	M8	17	80	20	4000	6.6
LGS45T	45	39	M12	24	105	22.5	4000	11.2

LSQ Series Silence Ball Linear Rail Guides

LSQ silence linear rail guides have four trains of balls of the single arc groove are designed to a contact angle of 45° , with the ball chains between the balls, can effectly lowers the operating noise, improve the movement smooth, especially suit for the equipment that ask for high-speed, silence and low dust .



一、Feature

■1、Low Noise

The ball circulation is made of the high strengthened plastic accessories, and equip with the ball chain, which can lowers the operating noise between the balls. The noise intensity of LSQ series effectively reduce 5 dB in various speed compared with that of the LGS.

■2、Self-lubricating

The design for the oil storage space between the ball chains can keep the lubricant in a long time without need to maintain when the ball move.

■3、Smooth Movement

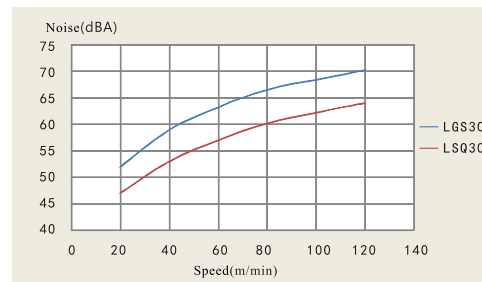
The balls in the ball chain are arranged in evenly equidistance, started at the same time when slider began movement, this can avoid interference between the balls and minimize the change of frictional resistance.

■4、High Sealing

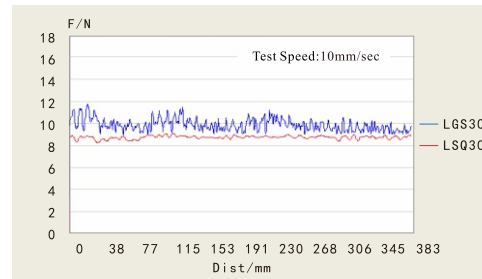
LSQ series silence rail guides are equipped with the high dust accessories as same as that of LGS series, can improve the sealing performance.

■5、Interchangeability

The assembled interchangeability of the LSQ series silence rail guides and LGS series may convenient for customers to replace.



Comparison of Noise



The Comparison of Frictional Resistance

二、Preload and Rigidity

Preloading a linear rolling rail guide can ensure its motion precision and enhance its rigidity. When a certain load is applied, LSQ linear guide has maximum effect is expended $2\sqrt{2}$ times, which can be roughly considered as 3 times for the convenience of calculation. As excessive preload can adversely affect the service life of the product, linear rolling rail guides produced by HTPM has set 10% of the dynamic load rating C as its maximum preload. The rigidity value of the micro preload, Light preload, and medium preload three types of LSQ series guides is show as follows:

Model No.	Types	Value of Rigidity (kgf/μm)		
		Micro Preload K0	Light Preload K1	Medium Preload K2
LSQ30AA AN EA FA		21	37	46
LSQ30HAA HAN HEA HFA		28	48	60
LSQ35AA AN EA FA		26	43	53
LSQ35HAA HAN HEA HFA		34	56	69

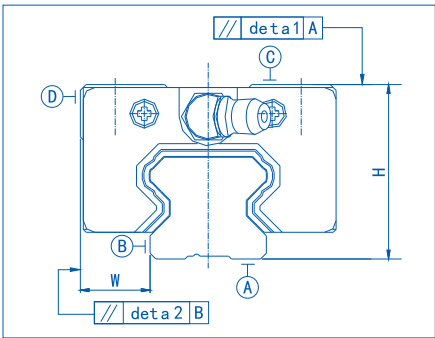
三、Description of Precision

The precision standard and testing methods of LSQ linear rolling rail guide accords with the People's Republic of China Machinery Industry Standard JB/T7175 4-2006, defined in 《Part 4: standards for Check and Accept of Linear Rolling Rail Guide for Use in Machine Tools》, having the same effect as the manufacturers' standards in the same industry in foreign countries.

1、Precision class (precision for assembly of linear rolling rail guide)

The value of tolerance for all precision classes of linear rolling rail guides is listed in the following table.

The rail may shows a certain extend of deformation in a free state, which will lead to extra error with some items. The correct method of testing the rail is to measure it while having it fixed on a table.



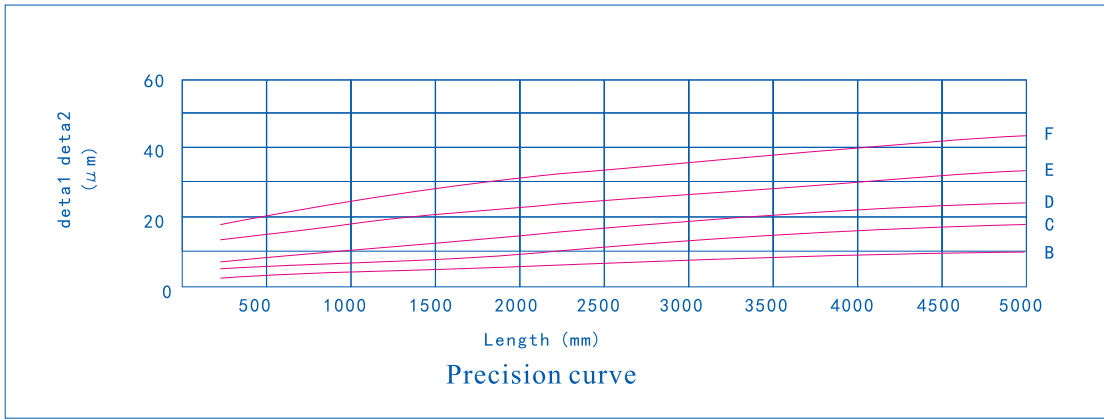
Comprehensive Precision of Linear Rolling Rail Guide

Unit: μm

Item	Symbol	Precision class				
		B	C	D	E	F
Dimension tolerance of H	δH	± 5	± 12	± 25	± 50	± 100
Uniformity of two blocks with size H on same guide	ΔH	3	5	7	20	40
Tolerance of dimension W from assemble base D to side B(1)	δW	± 8	± 15	± 30	± 60	± 120
Uniformity of two blocks with size W on the same rail(2)	ΔW	5	7	10	25	70

Note: suitable for reference guide when mounting on two or more guideways on the same surface.

2、Motion Precision



Users may refer to the specific value listed in below table.

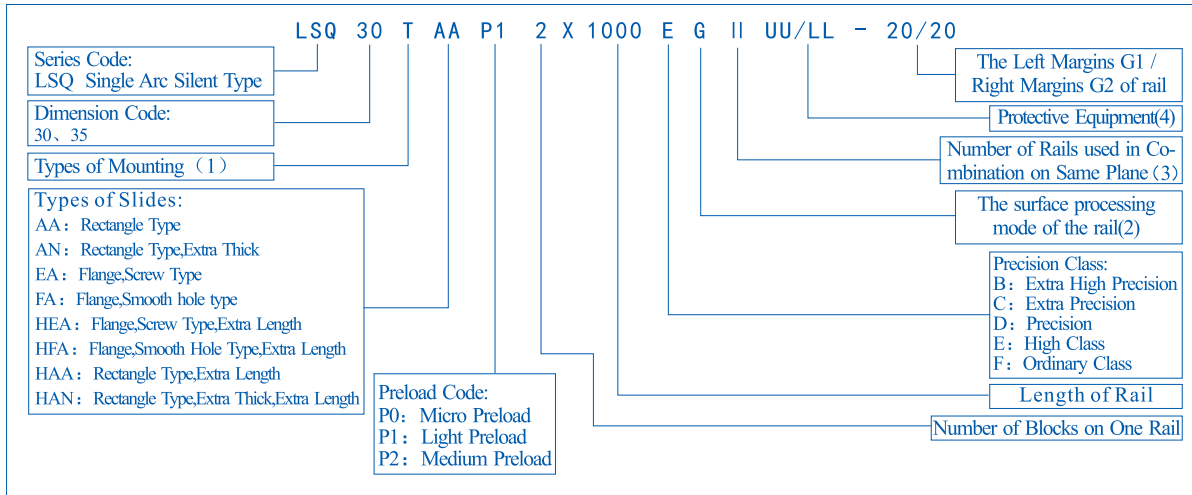
Motion Precision of Linear Rolling Rail Guide

Unit: μm

Length (mm)	Precision class				
	B	C	D	E	F
≤ 500	2	4	8	14	20
$> 500 \sim 1000$	3	6	10	17	25
$> 1000 \sim 1500$	4	8	13	20	30
$> 1500 \sim 2000$	5	9	15	22	32
$> 2000 \sim 2500$	6	11	17	24	34
$> 2500 \sim 3000$	7	12	18	26	36
$> 3000 \sim 3500$	8	13	20	28	38
$> 3500 \sim 4000$	9	15	22	30	40

四、Ordering Codes

Codes can be chosen to order, (please provide the completed "the demand table for the selected order "in the first time when ordering). The rules and meanings of numbering are as follows:



Note: (1) "T" means mounting from top of rail, if no symbol, that means mounting from bottom of rail.

(2) "G" indicates that the rail surface is chrome plated and unsigned is no surface treatment.

(3) II refers to two rails in same plane are used in combination; III refers to three rails in same plane are used in combination. In cases where the rails are not used in combination, this symbol is not used.

(4) Protection with no symbol is indicated with side seal + under seal.

UU is double side seal + under seal.

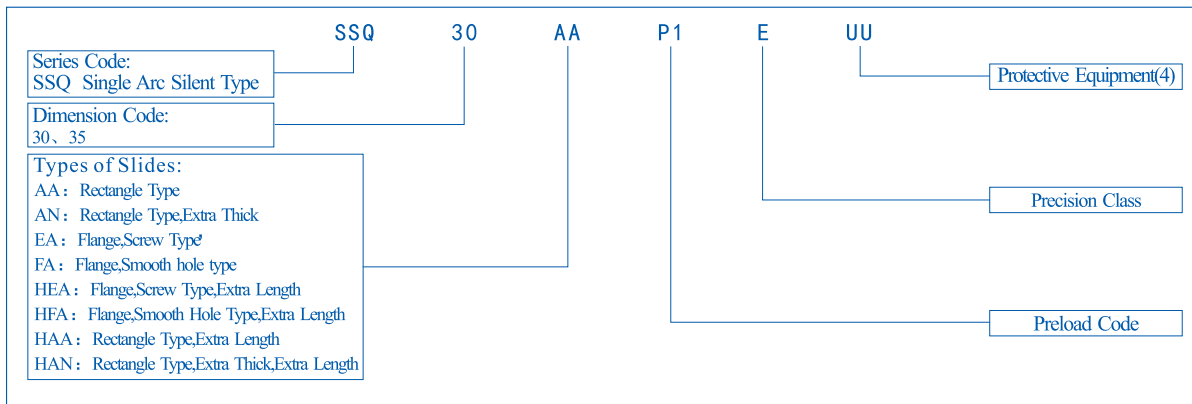
ZZ is side seal + under seal + metal scraper.

KK is double side seal + under seal + metal scraper.

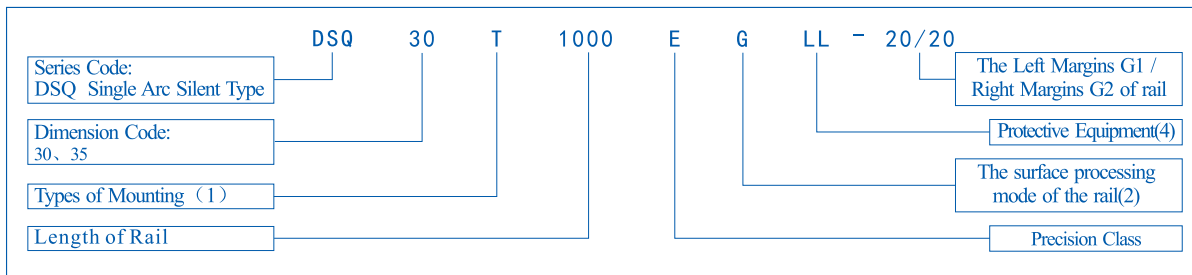
LL is protection zone plate of rail.

Ordering rail or slider separately should be according to the following code as below:

Slider code

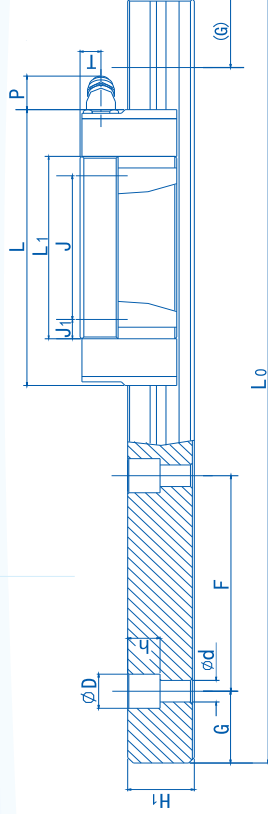
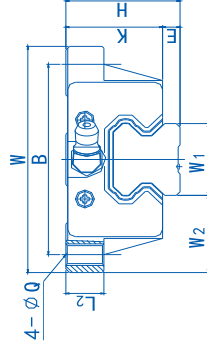


Rail code



If you need order interchangeable linear rolling guides , please feel free to contact the company.

五、Table of Dimensions

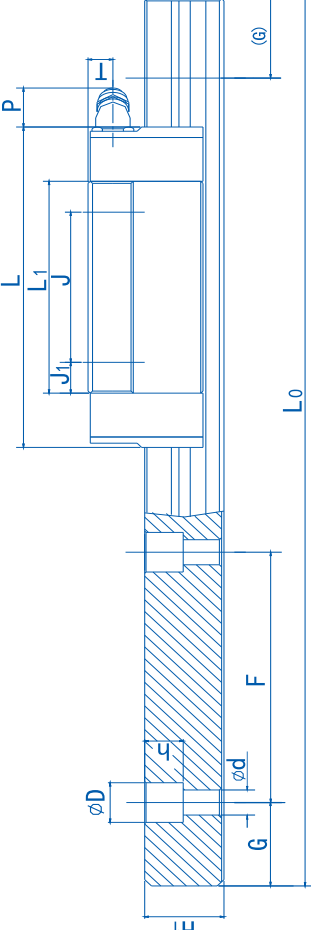
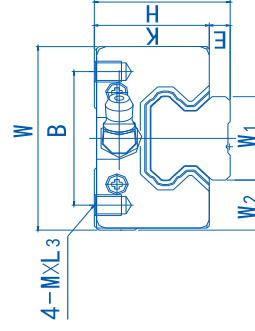


LSQ series products dimension table Type:EA(screw type slide) FA(smooth hole type slide) HFA(screw type slide extra length)HFA(smooth hole type slide extra length) Unit:mm

Model No.	Assembly Dimensions			Slide Dimensions										Rail Dimensions					Basic Load Rating		Weight										
	Height H	E	W ₂	Width W	B×J	Length of Slider L	L ₁	J ₁	P	T	K	Mounting Hole φ×L ₂	Rail Width W ₁	H ₁ ¹	H ₁ ²	Pitch F	Mating Bolt Hole d×D×h	Reference g	Maximum Load L ₀ max	Dynamic Load C (kgf)		Static Load Co (kgf)	Slide Guide (kg/m)								
LSQ30EA	42	7	31	90	72×52	99	72	10	10	6.5	35	M10×12	28	27.5	27.7	80	9×14×12	20	4000	4200	4550	0.65	4.8								
LSQ30FA						120	93	20.5				M10×12							5160	6200	0.84										
LSQ30HEA						109.6	80.6	9.3				φ9×12										5580		5900	1.33						
LSQ30HFA												φ9×12								6840	8100	1.78									
LSQ35EA	48	7.5	33	100	82×62	109.6	80.6	9.3	10	8	40.5	M10×13	34	30.3	30.6	80	9×14×12	20	4000	5580	5900	1.33	6.38								
LSQ35FA						134.5	105.8	21.9				M10×13															6840	8100	1.78		
LSQ35HEA						φ9×13																									
LSQ35HFA																															

Note: H₁¹ is the size without the protection zone plate; H₁² is the size with a protective belt plate.

In table the dynamic load rating C is basis for 50km. As a reference to 100km, please set the table value divided by 1.26



LSQ series products dimension table Type:AA(rectangle slide types) AN(rectangle slide type extra thick) HAA(rectangle slide type extra length) HAN(rectangle slide type extra thick and extra length) Unit:mm

Model No.	Assembly Dimensions			Slide Dimensions										Rail Dimensions						Basic Load Rating		Weight Slide Guide (kg/m)	
	Height H	E	W ₂	Width W	B×J	Length of Slider	L ₁	J ₁	P	T	K	Mounting Hole M×L ₃	Rail Width W ₁	H ₁ ¹	H ₁ ²	Pitch F	Mating Bolt Hole d×D×h	Reference g	Maximum Length L _{0max}	Dynamic Load C (kgf)	Static Load Co (kgf)		
LSQ30AA	42	7	16	60	40×40	99	72	16	10	9.5	38	M8×8	28	27.5	27.7	80	9×14×12	20	4000	4200	4550	0.7	
LSQ30AN	45					120	93	16.5				M8×10								0.9			
LSQ30HAA	42					109.6	80.6	15.3				M8×8								5160	6200	1.18	
LSQ30HAN	45											M8×10								5580	5900	1.28	
LSQ35AA	48	7.5	18	70	50×50	109.6	80.6	15.3	10	15	47.5	M8×9	34	30.3	30.6	80	9×14×12	20	4000	5580	5900	0.98	
LSQ35AN	55					134.5	105.8	16.9				M8×12								1.28			
LSQ35HAA	48					1547.5	M8×9	1547.5				M8×12								6840	8100	1.30	
LSQ35HAN	55																			1.71			

Note: H₁¹ is the size without the protection zone plate; H₁² is the size with a protective belt plate.

In table the dynamic load rating C is basis for 50km. As a reference to 100km, please set the table value divided by 1.26

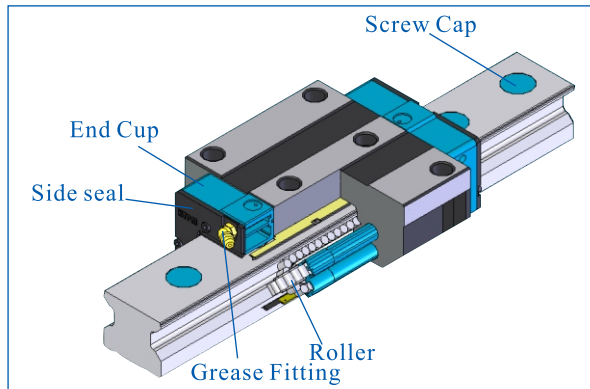
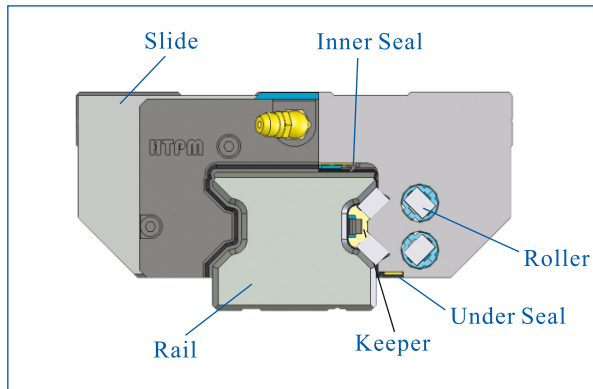
Roller Linear Rail Guides

LGR Series Roller Linear Rail Guides

一、Structure

Integer Structure

Integer Structure see below, rail is made of high quality alloy steel. The positioned side and groove are grinded at the same time, which will ensure the precision of the geometric shape of the groove. The keeper can prevent the steel balls to fall out. The end cup is usually made of high-strength engineering materials and guides the balls to change its circulating direction to form a continuous circulation motion. The side seal and the under seal are essential parts for dust-proof. Lubrication of the rail guide is achieved through injecting lubricant from the grease fitting.



二、Feature

■ 1.High Load Capacity and High Rigidity

The LGR series roller linear guideway is equipped with rollers instead of the balls, which has a line contacts with rail and slider, it just make some tiny elastic deformation while under the heavy load, improving the rigidity of rail. The rail with the design of DB45 combination, can withstand the load from the upper, below, left or right all four directions.

■ 2.High Performance of Seal and Dust Proof

Side seals are fitted on both sides of the guide and a under seal on the bottom and inside of slide, which give good performance of dust proof. Also, a screw cap is designed on the mounting hole to prevent dust amassment, prolong service life. In order to adapt to the harsh environment, the protection with stainless steel Protective plate and the double side seal can be selected.

■ 3.High-speed, High acceleration and Deceleration

LGR series roller guideways with the accessories is made of the impact-resistant material can achieve high-speed movement, and its maximum speed can up to 120m/min, the maximum acceleration achieve to 2G.

三、Preload and Rigidity

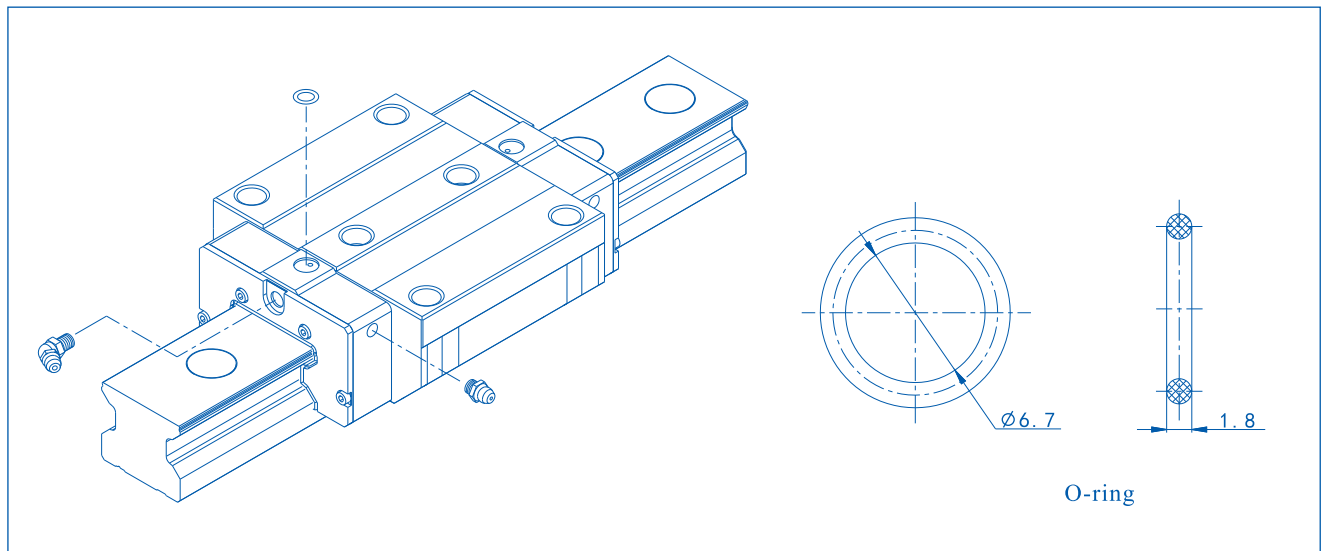
Preloading a linear rolling rail guide can ensure its motion precision and enhance its rigidity. When a certain preload is applied, LGR series roller linear rail guides have the maximum effect is expanded 2 times. According to the characteristics of the roller guides, the difference of the rigidity is less due to the different preload, which can steady with the high rigidity. HTPM has set 10% of the dynamic load rating C as its maximum preload.

LGR roller linear guide provides Medium preload and Heavy preload, the values of that is shown in the following table.

Model No.	Type	Values of Rigidity (kgf/μm)	
		Medium Preload K2	Heavy Preload K3
LGR25AN、EA		93	110
LGR25HAN、HEA		119	140
LGR30AN、EA		108	128
LGR30HAN、HEA		145	170
LGR35AN、EA		120	140
LGR35HAN、HEA		160	190
LGR45AN、EA		180	215
LGR45HAN、HEA		245	290
LGR55AN、EA		220	260
LGR55HAN、HEA		315	375
LGR65AN、EA		305	360
LGR65HAN、HEA		435	510
LGR100EA		630	740

四、Types of Lubrication

LGR Series linear guides not only is designed the lubricating lips at the front and the end of the slider, but also have the holes for fitting the oil on the laterally and top surfaces. In order to prevent the entry of foreign particles, the standard filling hole is no penetration. In addition, when using the hole on the top surface, need to equip with the O-ring. If having the lubrication requirement on the lateral or above, please contact with HTPM. When doing the collective lubrication, take off the lubricating lips and install the designated pipe connector. Users can specify the type of lubricating pipe connector in the order.



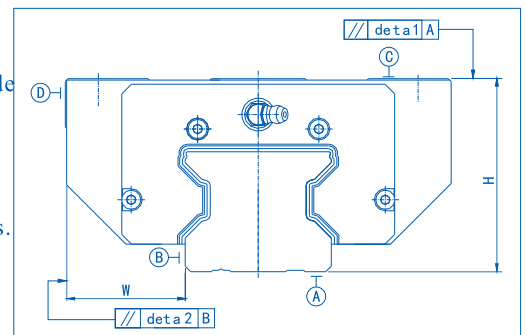
Specification of O-ring

Unit: mm

Model No.		LGR25	LGR30	LGR35	LGR45	LGR55	LGR65	LGR100
Specification of O-ring	D	5	6.7	6.7	6.7	6.7	6.7	6.7
	d	1.8	1.8	1.8	1.8	1.8	1.8	1.8

五、Description of Precision

The precision standard and testing methods of LGR linear roller rail guide accords with the People's Republic of China Machinery Industry Standard JB/T7175 4-2006, defined in 《Part 4: standards for Check and Accept of Linear Rolling Rail Guide for Use in Machine Tools》, having the same effect as the manufacturers' standards in the same industry in foreign countries.



1、Precision Class (precision for assembly of linear rolling rail guide)

The value of tolerance for all precision classes of linear rolling rail guides is listed in the following table.

The rail may shows a certain extend of deformation in a free state, which will lead to extra error with some items. The correct method of testing the rail is to measure it while having it fixed on a table.

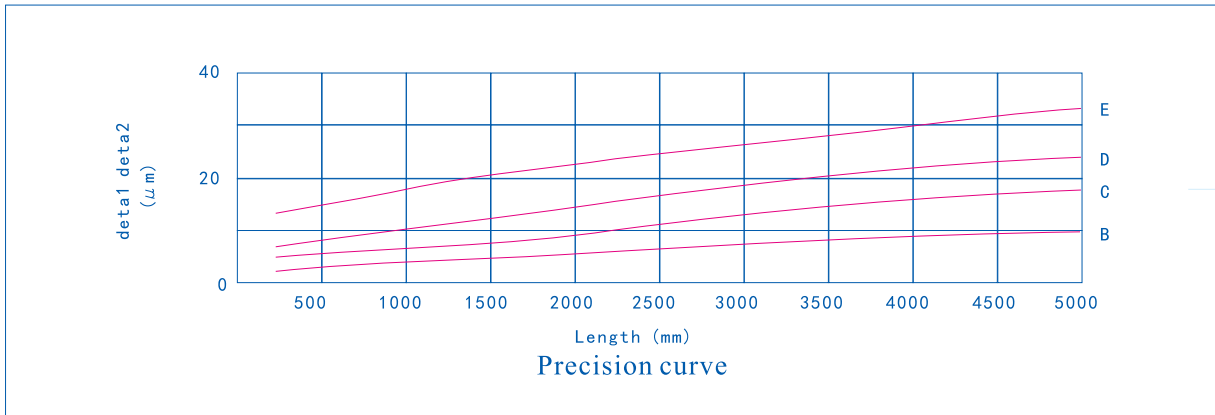
Comprehensive Precision of Linear Rolling Rail Guide

Unit: μm

Item	Symbol	Precision class			
		B	C	D	E
Dimension tolerance of H	δH	± 5	± 12	± 25	± 50
Uniformity of two blocks with size H on same guide	ΔH	3	5	7	20
Tolerance of dimension W from assemble base D to side B(1)	δW	± 8	± 15	± 30	± 60
Uniformity of two blocks with size W on the same rail(2)	ΔW	5	7	10	25

Note: suitable for reference guide when mounting on two or more guideways on the same surface.

2、Motion Precision



Users may refer to the specific value listed in below table.

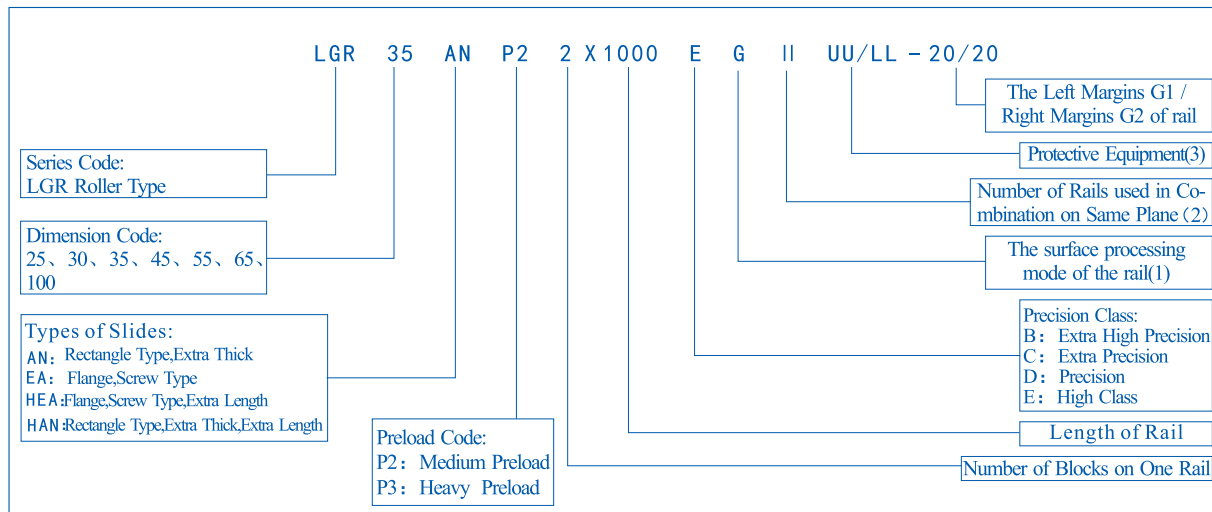
Motion Precision of Linear Rolling Rail Guide

Unit: μm

Length (mm)	Precision class μm			
	B	C	D	E
≤ 500	2	4	8	14
$> 500 \sim 1000$	3	6	10	17
$> 1000 \sim 1500$	4	8	13	20
$> 1500 \sim 2000$	5	9	15	22
$> 2000 \sim 2500$	6	11	17	24
$> 2500 \sim 3000$	7	12	18	26
$> 3000 \sim 3500$	8	13	20	28
$> 3500 \sim 4000$	9	15	22	30

六、Ordering Codes

Codes can be chosen to order, (please provide the completed "the demand table for the selected order "in the first time when ordering). The rules and meanings of numbering are as follows:



Note:(1) "G" indicates that the rail surface is chrome plated and unsigned is no surface treatment.

(2)II refers to two rails in same plane are used in combination; III refers to three rails in same plane are used in combination. In cases where the rails are not used in combination, this symbol is not used.

(3) Protection with no symbol is indicated with side seal + under seal + inner seal.

UU is double side seal + under seal+ Inner seal .

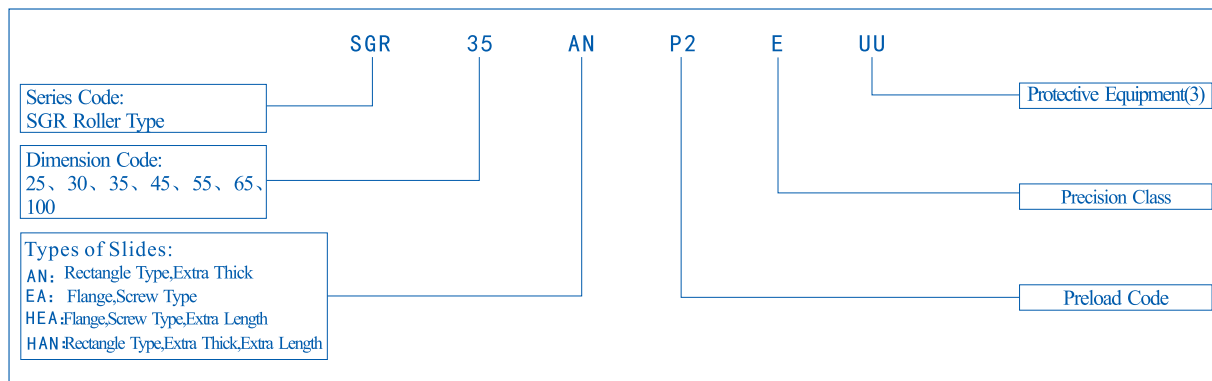
ZZ is side seal + under seal+ Inner seal + metal scraper.

KK is double side seal + under seal+ Inner seal + metal scraper.

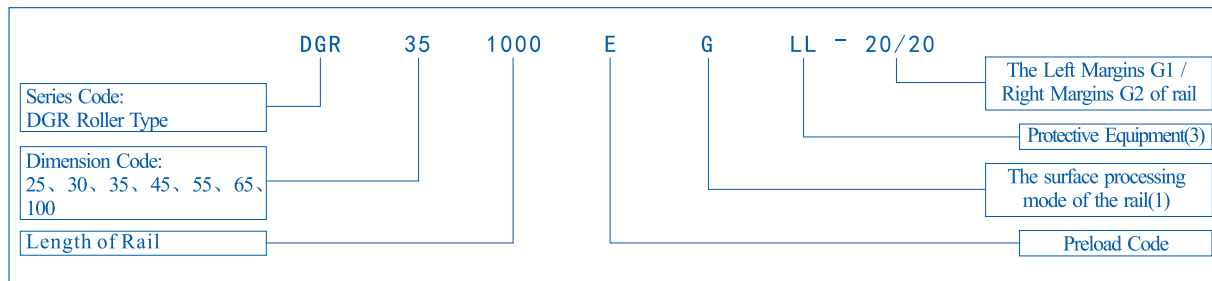
LL is protection zone plate of rail (LGR100 temporarily does not provide).

Ordering rail or slider separately should be according to the following code as below:

Slider code

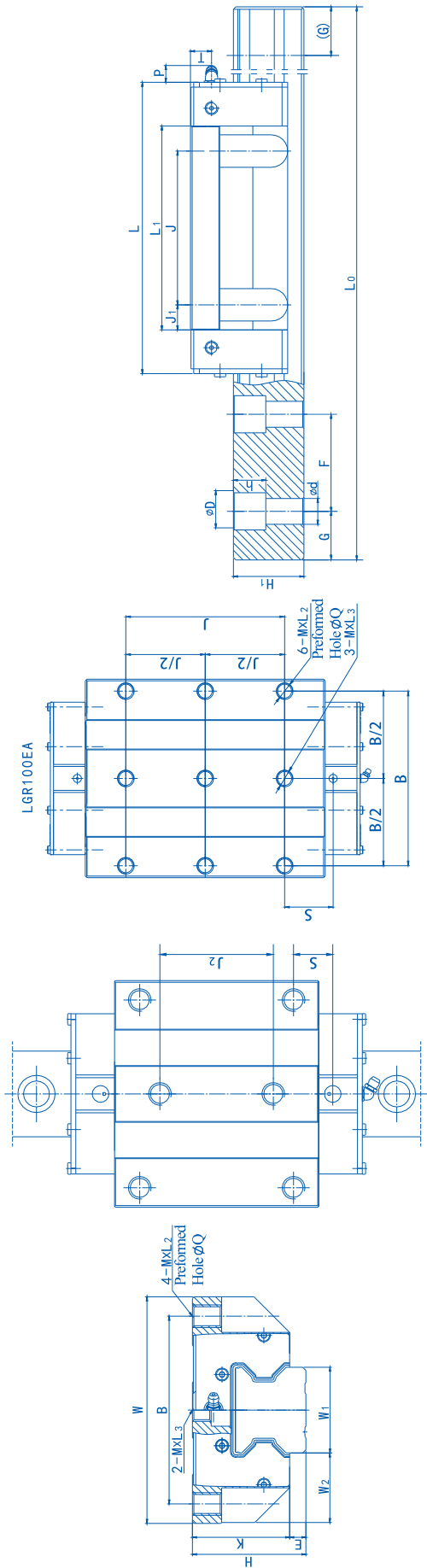


Rail code



If you need order interchangeable linear rolling guides , please feel free to contact the company.

七、Table of Dimensions



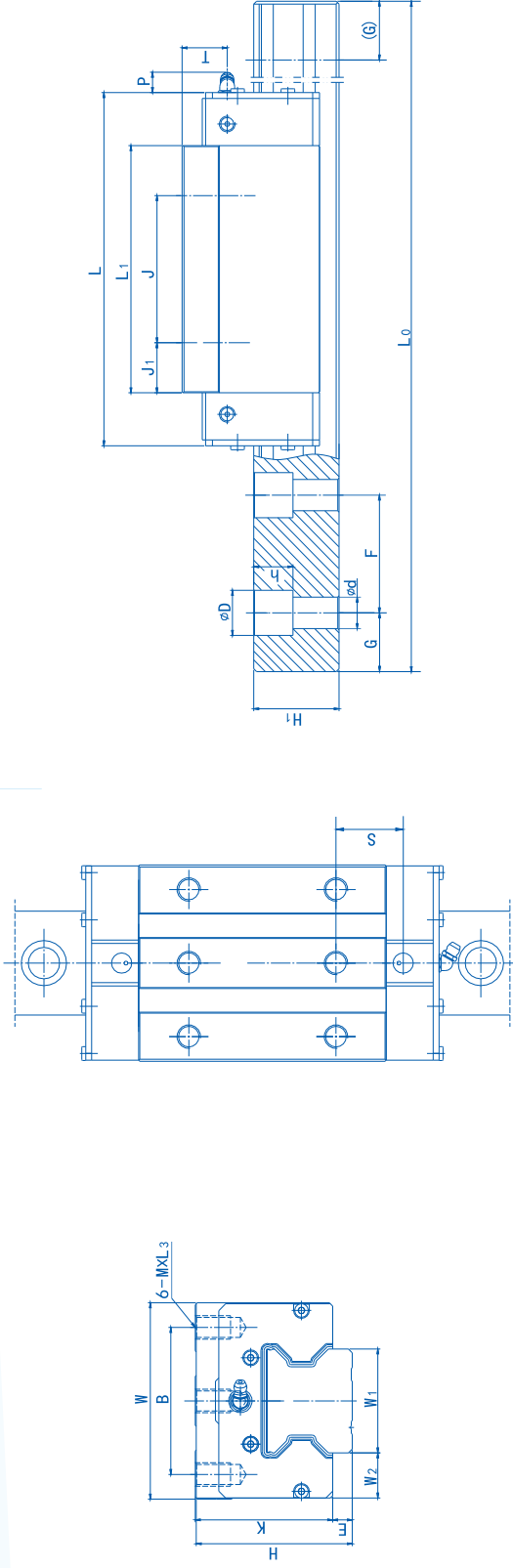
LGR Series Products Dimension Table Type: Ea(screw type slide) HEA(screw type slide extra length)

Unit:mm

Model No.	Assembly Dimensions			Slide Dimensions											Rail Dimensions					Basic Load Rating		Weight				
	Height H	E	W ₂	Width W	B×J	Length of Slider L	L ₁	J ₁	P	T	S	K	Mounting Hole M×L ₂	Q	M×L ₃	Rail Width W ₁	H ₁ ¹	H ₁ ²	Pitch F	Mounting Bolt Hole d×D×h	Reference g	Maximum Length L _{max}	Dynamic Load C (kgf)	Static Load C ₀ (kgf)	Slide (kg)	Guide (kg/m)
LGR25EA	36	5.5	23.5	70	57×45	96.5	64.5	9.75	40	105.5	15.25	30.5	M8×10	6.8	M8×5.3	23	24	24.2	30	7×11×9	20	4000	2800	6100	0.73	3.17
LGR25HEA						113	81	18			23.5												3450	7500	0.93	
LGR30EA	42	6.5	31	90	72×52	109.5	71.5	9.75	44	106.3	16.75	35.5	M10×11	8.5	M10×5.5	28	28	28.2	40	9×14×12	20	4000	3900	7900	1.15	4.6
LGR30HEA						134	96	22			29												4900	10600	1.56	
LGR35EA	48	6.5	33	100	82×62	126	81	9.5	52	108	17.2	41.5	M10×13	8.5	M10×6	34	31	31.3	40	9×14×12	20	4000	5800	11200	1.74	6.3
LGR35HEA						153	108	23			30.7												7400	15100	2.34	
LGR45EA	60	9	37.5	120	100×80	155	105	12.5	60	159	18.8	51	M12×15	10.5	M12×9	45	38	38.3	52.5	14×20×17	22.5	4000	9200	18500	3.32	10.13
LGR45HEA						190	140	30			36.3												11600	25000	4.47	
LGR55EA	70	10	43.5	140	116×95	180	126	15.5	70	1513	24.2	60	M14×18	12.5	M14×11.5	53	43.5	43.8	60	16×23×20	30	4000	14000	28100	5.53	13.5
LGR55HEA						234	180	42.5			51.2												18700	40500	7.95	
LGR65EA	90	13	53.5	170	142×110	223	160	25	82	1517	35	77	M16×23	14.5	M16×16.5	63	55	55.3	75	18×26×22	35	4000	24800	49700	10.01	20.9
LGR65HEA						290	227	58.5			68.5												32700	71100	14.59	
LGR100EA	120	15	75	250	220×200	397	302	51	-	1518	61	105	M20×35	17.5	M20×18	100	82	-	105	26×39×32	50	4000	72700	151550	40	50

Note: H₁¹ is the size without the protection zone plate; H₁² is the size with a protective belt plate.

In table the dynamic load rating C is basis for 50km. As a reference to 100km, please set the table value divided by 1.23.



LGR Series Products Dimension Table Type:AN(rectangle slide type extra thick) HAN(rectangle slide type extra thick and extra length) Unit:mm

Model No.	Assembly Dimensions			Slide Dimensions										Rail Dimensions						Basic Load Rating		Weight		
	Height H	E	W ₂	Width W	B×J	Length of Slider L	L ₁	J ₁	P	T	S	K	Mounting Hole M×L ₃	Rail Width W ₁	H ₁ ¹	H ₁ ²	Pitch F	Mounting Bolt Hole d×D×h	Reference G	Maximum Length L _{max}	Dynamic Load C (kgf)	Static Load C ₀ (kgf)	Slide (kg)	Guide (kg/m)
LGR25AN	40	5.5	12.5	48	35×35	96.5	64.5	14.75		109.5	20.25	34.5	M6×9	23	24	24.2	30	7×11×9	20	4000	2800	6100	0.62	3.17
LGR25HAN					35×50	113	81	15.5			21										3450	7500	0.77	
LGR30AN	45	6.5	16	60	40×40	109.5	71.5	15.75		109.3	22.75	38.5	M8×10	28	28	28.2	40	9×14×12	20	4000	3900	7900	0.91	4.6
LGR30HAN					40×60	134	96	18			25										4900	10600	1.19	
LGR35AN	55	6.5	18	70	50×50	126	81	15.5		101.5	23.2	48.5	M8×12	34	31	31.3	40	9×14×12	20	4000	5800	11200	1.58	6.3
LGR35HAN					50×72	153	108	18			25.7										7400	15100	2.04	
LGR45AN	70	9	20.5	86	60×60	155	105	22.5		151.9	28.8	61	M10×18	45	38	38.3	52.5	14×20×17	22.5	4000	9200	18500	3.14	10.13
LGR45HAN					60×80	190	140	30			36.3										11600	25000	4.13	
LGR55AN	80	10	23.5	100	75×75	180	126	25.5		152.3	34.2	70	M12×18	53	43.5	43.8	60	16×23×20	30	4000	14000	28100	5.04	13.5
LGR55HAN					75×95	234	180	42.5			51.2										18700	40500	7.1	
LGR65AN	90	13	31.5	126	76×70	223	160	45		151.7	55	77	M16×20	63	55	55.3	75	18×26×22	35	4000	24800	49700	7.35	20.9
LGR65HAN					76×120	290	227	53.5			63.5										32700	71100	10.49	

Note: H1¹ is the size without the protection zone plate; H1² is the size with a protective belt plate.

In table the dynamic load rating C is basis for 50km. As a reference to 100km, please set the table value divided by 1.23.

Cross Rolling Element Linear Rail Guide

一、Structure

A cross rolling element linear rail guide is a set of rail guides composed of four rails, of which the grooves are arranged in V shape, two keepers (including the rolling elements maintained on them), and blockers installed at the ends of the rails to prevent the keepers from falling off.

二、Features

1.high rigidity 2.low friction force and easy to startup 3.high capacity of bearing loads 4. low degree of wearing
5. high precision, and f. low noise

三、Relations between the Length of the Keeper and the Length of the Rail

H-stroke L-length of rail Lg-length of keeper

Where $H \leq 400\text{mm}$, then $L \geq 1.5H$

Where $H > 400\text{mm}$, then $L \geq H$

$$Lg \leq L - \frac{H}{2}$$

四、The Mounting of Linear Rolling Guides

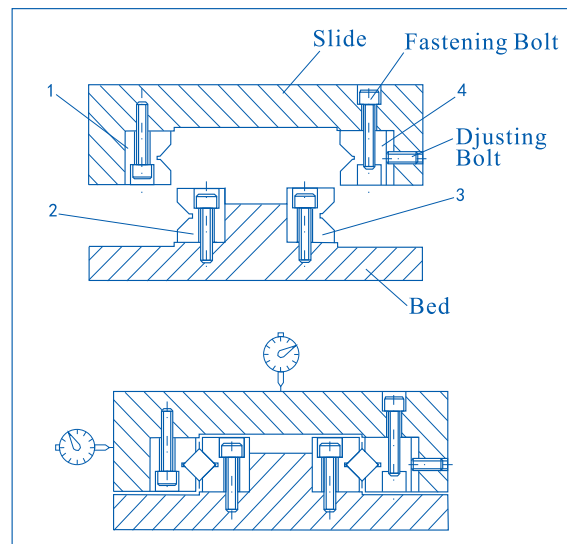
- 1. Clean the reference surface of the parts with degreasing liquid to eliminate the antirust oil. As the degreased surface is easy to get rusty, it is advised to daub the surface with low sticky oil before put in use.
- 2. Associate the reference side face of parts 1 to 3 with the reference side face of the positioning shoulder, then, preparatorily fix them with bolts on the machine bed and the reference surface of the sliding table. The bolts should not be fastened too much at this stage. It is enough so long as the the surface of the parts closely match the corresponding reference sides. Pressing the parts fast with a fixing board so that they touchj the mounting reference sides closely. Screw down the mounting bolts with a moment wrench according to the value listed in the following table, starting from the center and cross to the two ends in a diagonal manner.
- 3. Preparatorily fix part 4 on the adjust side.
- 4. Carefully insert the keeper to the central part.
- 5. Install the blocks onto the ends of the rails.
- 6. Move the sliding table to the left and right limit and adjust the keeper to the central position.
- 7. Direct the head of the meter to the center and side faces of the sliding table.
- 8. Move the sliding table to the limit of one end, and after ensuring that there is a rolling pillar just in front of the adjusting bolt, screw down the adjusting bolt softly.
- 9. Move the sliding table to the limit of the other end, repeat the process illustrated above.
- 10. Move the sliding table to the center and screw down the adjusting bolt softly.
- 11. Repeat steps 8 to 10, and adjust the clearance of the sliding table to 0. At this time, the meter hand shows the minimum swing.
- 12. Take reference to the value given in the following table, fasten the adjusting bolts according to steps 8 to 10.
- 13. Lastly, fasten part No. 4. Following the steps of fastening the adjusting bolts, move the sliding table so as to ensure that the fastening bolts stand just in front of the rolling pillar.

Moment Force of Fastening Bolts (bolt material: chrome-molybdenum steel)

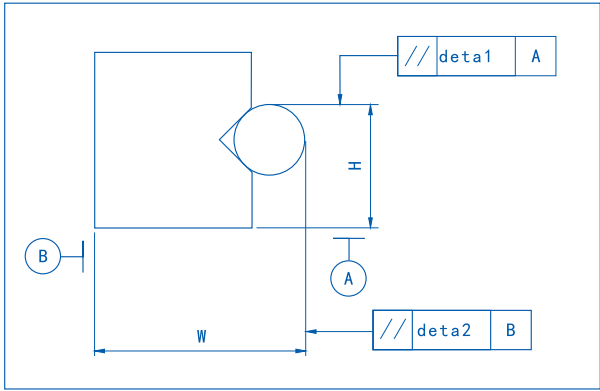
Bolt Number	Moment Force (N.m)
M8	22
M6	8. 8
M5	5
M4	2. 5
M3	1

Torque of Adjusting Bolt (bolt material: chrome-molybdenum steel)

Bolt Number	Moment Force (N.m)
M6	0. 4
M5	0. 2
M4	0. 05



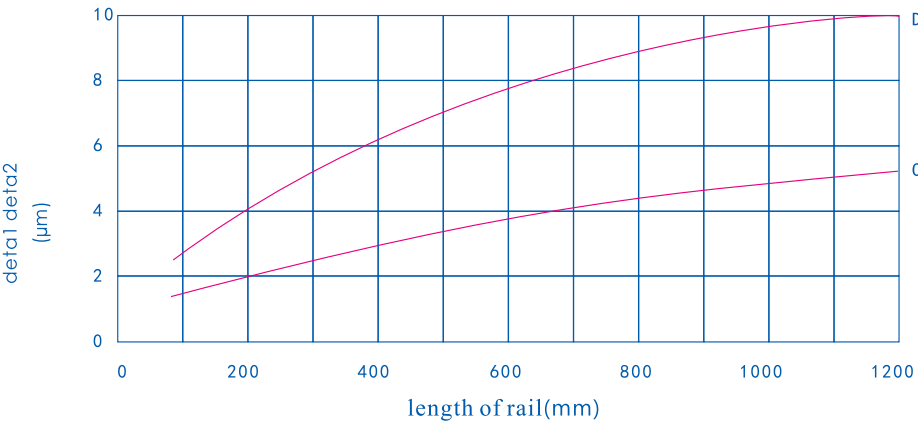
五、Precision



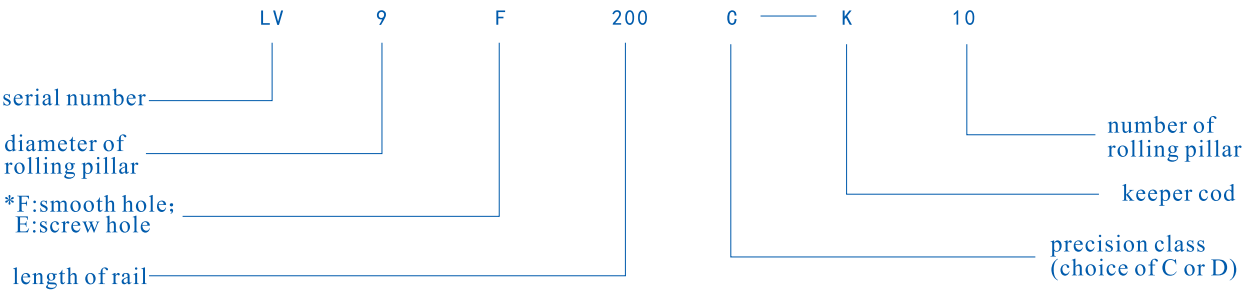
Unit: μm

Precision class	C	D
Dimension tolerance of H	± 12	± 25
Uniformity tolerance of H	5	7
Dimension tolerance of W	0~50	
Parallelism of rail grooves Corresponding to A, B	see table	

Note:
1. The difference in height matching refers to the tolerance value of the uniformity of H of the four rails on the same machine bed.
1. The four rails have the same factory code, with suffix of 1, -2, -3, -4 on each rail.



六、Ordering Codes



Note: please note the quantity of both F and E if the guideway includes smooth and screw holes