



NEW PRODUCT

# SLIDE GUIDE

## SGL type

Higher Load Capacity, Misalignment Absorbability, and High Accuracy

**SGL Type Slide Guide series has 2 New Types added.**

New Type:SGL-HTF and SGL-HTE



Certificate No.958188



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NIPPON BEARING CO., LTD.

**Higher Load Capacity, Misalignment Absorbability and High Accuracy**

## **NB Slide Guide SGL Type**

**New Line****SGL-HTF Type Blocks****SGL-HTE Type Blocks**

Two new Type Blocks of HTF and HTE, which has longer block dimensions and more versatile mounting features are added to our conventional SGL Slide Guide series of Blocks SGL-F, TF, E, and TE. Though its compact configuration, Part number from 15 through 35, those five sizes of Blocks have high load capacity and so suits for more variable installation environment. Those have 4 precision ground raceway grooves internally and promise highly accurate linear motion controls.

## **STRUCTURE AND ADVANTAGES**

SGL slide guides consist of a rail with four precision-machined raceway grooves and a block assembly. The block assembly consists of the main body, ball elements, retainers, and return caps.

### **High Load Capacity and Long Life:**

The use of larger ball elements and a raceway with grooves machined to a radius close to that of the ball elements increases the area of the contact surface. The results are load capacity and provides longer life.

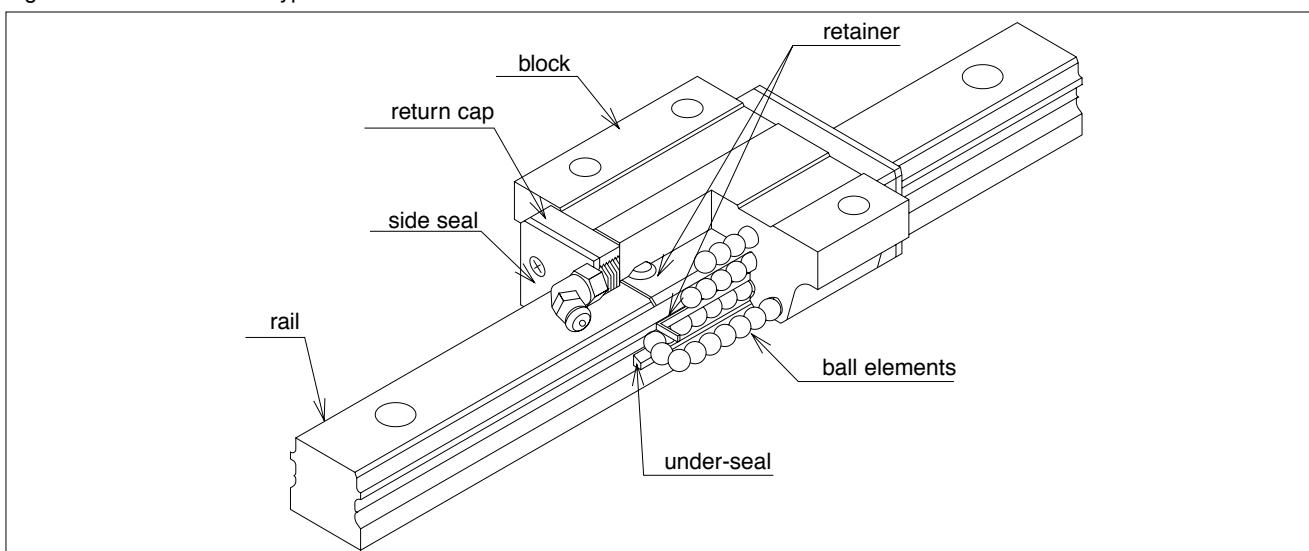
### **Low Wear:**

Because a 4-row/2-point contact design is used, low wear and stable motion characteristics are achieved even under a pre-loaded conditions.

### **Omni-Directional Load Capacity:**

The ball elements are positioned at 45° contact angle so that the load capacity is equal in four directions (above, underneath, right and left).

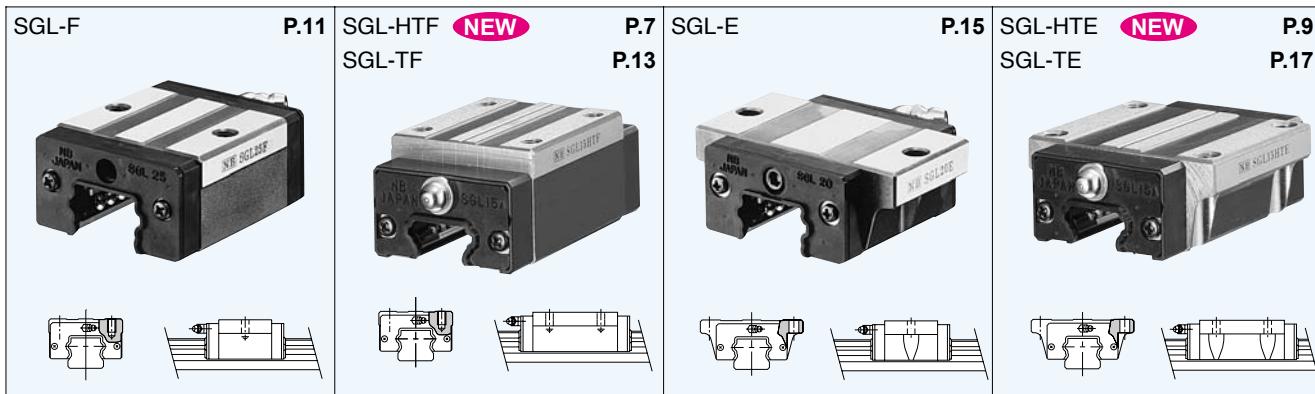
Figure 1 Structure of SGL type Slide Guide





## BLOCK TYPES

Six different types of blocks are available depending on the mounting space requirements and desired mounting method.



## ACCURACY

Three accuracy grades are available: normal-grade (no suffix), high-grade (H), and precision-grade (P).

Table 1 Accuracy

unit/mm

part number	SGL15,20			SGL25,30,35		
accuracy grade	normal	high	precision	normal	high	precision
accuracy symbol	none	H	P	none	H	P
allowable dimensional tolerance for height H	$\pm 0.1$	$\pm 0.03$	$-0.03 \sim 0$	$\pm 0.1$	$\pm 0.04$	$-0.04 \sim 0$
paired difference for height H	0.02	0.01	0.006	0.02	0.015	0.007
allowable dimensional tolerance for width W	$\pm 0.1$	$\pm 0.03$	$-0.03 \sim 0$	$\pm 0.1$	$\pm 0.04$	$-0.04 \sim 0$
paired difference for width W	0.02	0.01	0.006	0.03	0.015	0.007
Running parallelism of surface C to surface A	refer to Figure 2					
Running parallelism of surface D to surface B						

Figure 2 Motion Accuracy

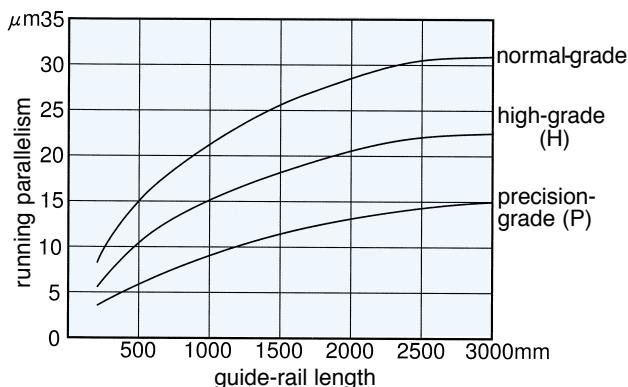
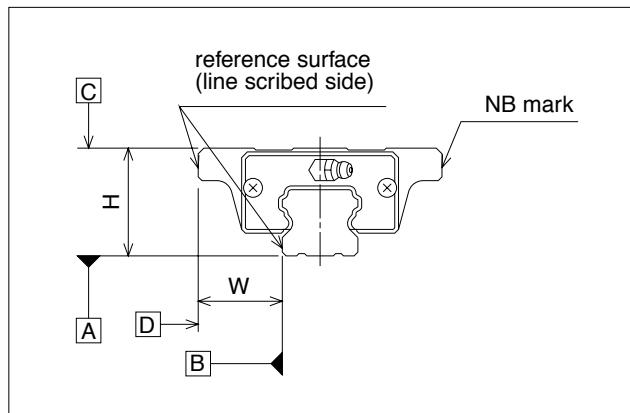


Figure 3 Accuracy





## PRE-LOAD

SGL slide guides are available with a standard pre-load(no suffix), light pre-load(T1), and a medium pre-load(T2).

Table 2 Pre-Load Symbol and Radial Clearance unit/ $\mu\text{m}$

pre-load category	standard	light	medium
pre-load symbol	blank	T1	T2
SGL15	-4~+2	-12~-4	-
SGL20	-5~+2	-14~-5	-23~-14
SGL25	-6~+3	-16~-6	-26~-16
SGL30	-7~+4	-19~-7	-31~-19
SGL35	-8~+4	-22~-8	-35~-22

Table 3 Operating Condition and Pre-Load

category	symbol	operating condition
standard	blank	Minute vibration is applied. Precision motion is required. Moment in a given direction is applied.
light	T1	Light vibration is applied. A slight torque is applied. When moment is applied.
medium	T2	Shock/vibration is applied. Over-hang load is applied. Torsional load is applied.

## RAIL LENGTH

Slide guides with most commonly used lengths are available as standard. Unless otherwise specified, the distance to the first mounting hole (N) from one end of the rail will be located within the range listed in Table 4 for slide guides that have a non-standard length satisfying the following equation.

$$L = M \cdot P + 2N$$

L : length (mm) N : distance to the first hole from the end of the rail (mm)  
M : number of pitches P : hole pitch (mm)

Figure 4 Rail

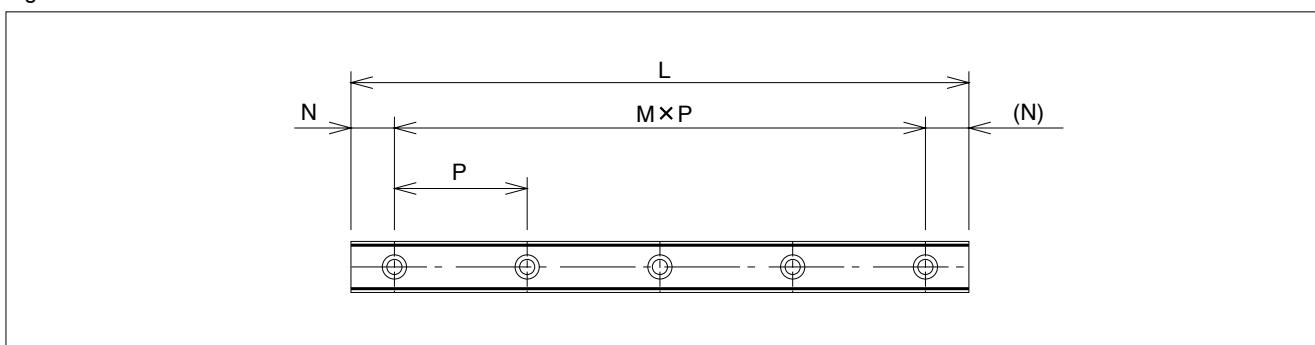


Table 4 Fabrication Range unit/mm

part number	N		Lmax
	and over	less than	
SGL15	6	36	2,000
SGL20	10	40	
SGL25	11	41	
SGL30	12	52	
SGL35	16	56	



## MOUNTING

Slide guides are generally mounted by pushing the reference surface of the rail and block against the shoulder of the mounting surface. An escape groove should be provided at the corner of the shoulder in order to avoid interference with the corner of the rail or block.

The bolts used to secure the rail should be tightened using a torque wrench. The recommended torque values are listed in Table 5.

Table 5 Recommended Torque

applicable slide guide	bolt size	recommended torque (N·m)
SGL-HTF,HTE	SGL-F,E,TF,TE	
-	15	M3
15	15D	M4
20	20	M5
25	25,30	M6
30,35	35	M8

Figure 5 Mounting Reference Surface Shapes

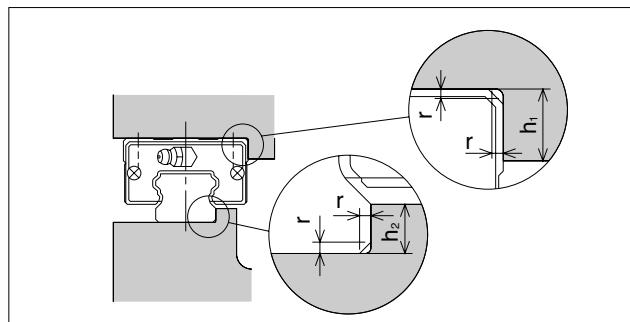


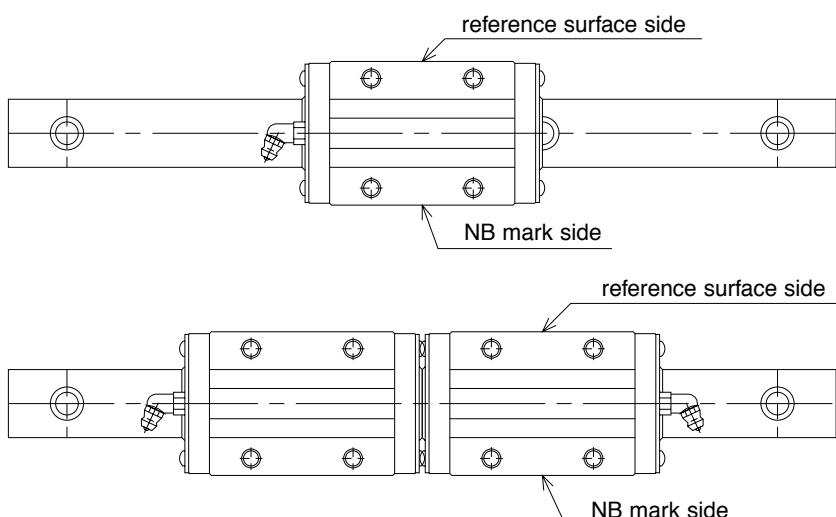
Table 6 Mounting Surface Dimensions

part number	$h_1$	$h_2$	$r_{max}$	unit/mm
SGL15	4	3.5	0.5	
SGL20	5	5	0.5	
SGL25	5	5.5	1	
SGL30	6	7.5	1	
SGL35	6	8	1	

## GREASE FITTING

A grease fitting is attached to the SGL slide guide in the return cap for lubrication purposes. Unless otherwise specified, the orientation of the grease fitting is as shown in Figure 6. When more than 3 blocks are used on one rail, the grease fitting orientation must be specified.

Figure 6 Number of Blocks and Grease Fitting Orientation





## DUST PREVENTION

### Seal:

NB SGL slide guides are available, with side-seals, and with side-seals plus under-seals. A sealing arrangement can be selected that matches the operating conditions and environment.

Slide guides with side-seals are used in typical environments to prevent dust from entering the guide block from above. Slide guides with side and under seals are used in more harsh environments or to prevent dust entering from below.

### Special Cap:

For SGL guides, special rail mounting caps are available to prevent dust from entering the installation mounting holes. These caps are installed after the rail is installed by using a jig and slowly inserting them into the holes until their top surface is flush with the rail surface.

Figure 7 Side-Seals and Under-Seals

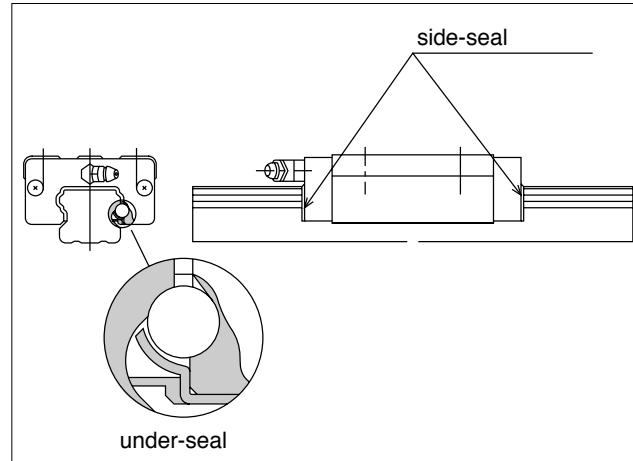


Figure 8 Special Cap Installation

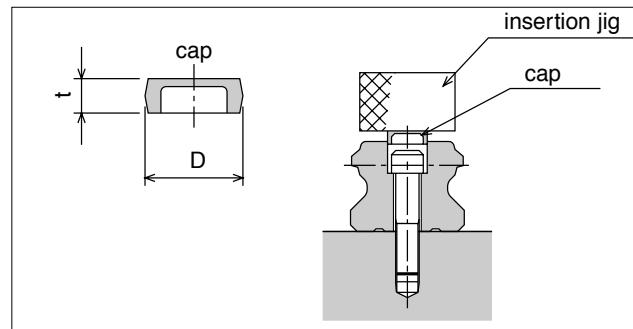


Table 7 Special Caps

part number	dimensions		applicable slide guide	
	D mm	t mm	SGL-HTF,HTE	SGL-F,E,TF,TE
F3	6.1	1.3	—	15
F4	7.5	1.1	15	15D
F5	9.7	2.5	20	20
F6	11.2	2.7	25	25,30
F8	14.3	3.65	30,35	35



## LUBRICATION

Lithium soap grease is applied to NB SGL slide guides before they are shipped so that they are ready for immediate use. The same type of grease should be added periodically depending on the operating conditions.

For use in clean rooms or vacuum environments, slide guides without grease are available. Slide guides lubricated with customer specified grease for special applications are also available.

## CORROSION RESISTANCE

Raydent surface treatment can be specified for the SGL guide series. This treatment is suitable for applications where corrosion resistance is required or periodic lubrication is difficult.

## K GREASE

K grease is a low dust generation lubricant for linear systems that provides long-term and stable dust control.

This particular type has very few impurities, yet its lubricating effect, contamination control, and rust prevention characteristics are equivalent to that of lithium soap grease.

General characteristics

Appearance : Yellow white

Thickening agent : Ureic

Base Oil : Composition Oil

Consistency : 280(No.2)

Operating : -30° ~ +150°C

Temperature range

## PRECAUTION FOR USE

NB Slide Guide SGL Type is precision device, to maintain its accurate travel motion, careful handling is advised.

Since resin part is used on Guide Block, its use under high temperature environment is not recommended, acceptable ambient temperature to operate it is lower than 80°C.

## SGL-HTF TYPE

## part number structure

example	SGL	20	HTF	B	2	T1	-589	P	/	W2	RD	F
SGL type												
size												
HTF type block												
seal												
blank	without under-seal											
B	seals on both ends + under-seals											
number of blocks per rail												
symbol for pre-load												
blank	standard											
T1	light											
T2	medium											
accuracy grade												
blank	standard											
H	high											
P	precision											
total length of rail												

Note: The symbol for the number of rail does not mean the number of rails ordered.



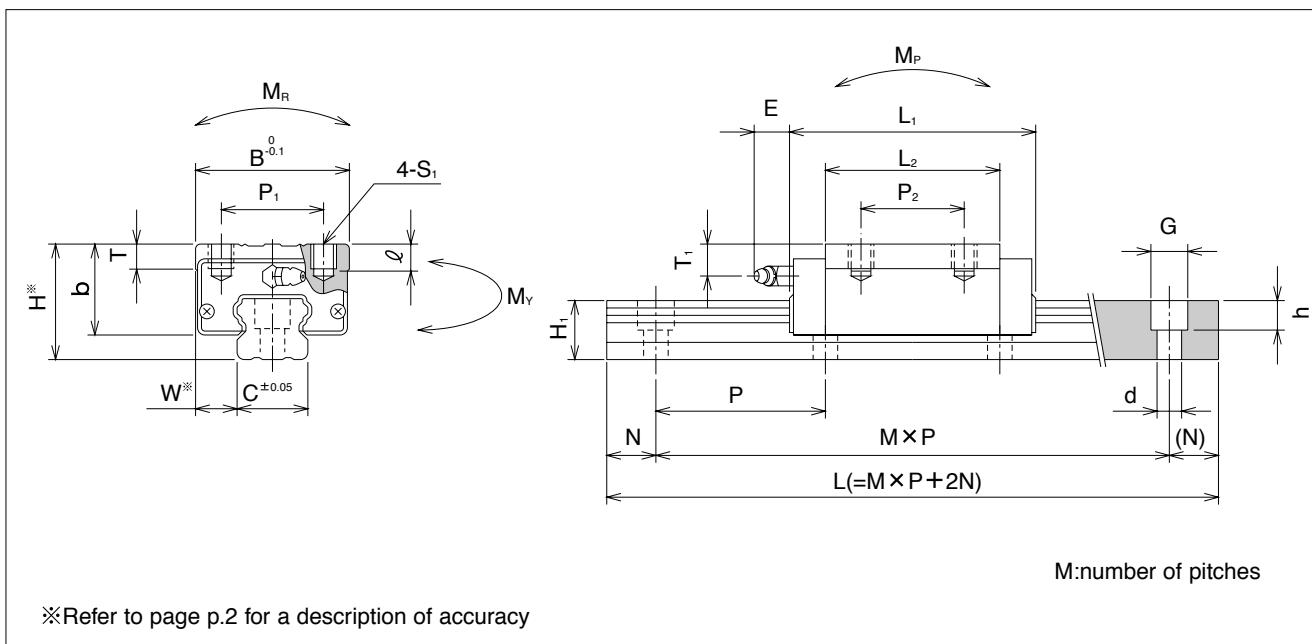
part number	assembly dimensions		block dimensions											grease fitting
	H mm	W mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	P <sub>1</sub> mm	P <sub>2</sub> mm	S <sub>1</sub> mm	ℓ mm	T mm	b mm	E mm	T <sub>1</sub> mm	
<b>SGL15HTF</b>	28	9.5	34	56.5	38.5	26	26	M4	5	6	23.7	6	9	pressed fitting
<b>SGL20HTF</b>	30	12	44	71.6	53.2	32	36	M5	6	9.5	24		8	B-M6F
<b>SGL25HTF</b>	40	12.5	48	80	59	35	35	M6	8		33		13.5	
<b>SGL30HTF</b>	45	16	60	95.7	67.7	40	40	M8	10		35.5		12	
<b>SGL35HTF</b>	55	18	70	109	78	50	50		12	13	45		15.5	

part number	standard rail length															
	L mm															
<b>SGL15</b>	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	
<b>SGL20</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120	
<b>SGL25</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120	
<b>SGL30</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400	
<b>SGL35</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400	

Rails exceeding the maximum specified length may be fabricated if joints are used. Contact NB for assistance.



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guide-rail dimensions					basic load rating		allowable static moment			mass		size
H <sub>1</sub>	C	d × G × h	N	P	dynamic C kN	static Co kN	M <sub>P</sub>	M <sub>Y</sub>	M <sub>R</sub>	block	guide rail	
mm	mm	mm	mm	mm			N · m	N · m	N · m	kg	kg/m	
13.5	15	4.5 × 7.5 × 5.3	20	60	8.6	14.2	69	69	98	0.2	1.3	<b>15</b>
16	20	6 × 9.5 × 8.5			12.7	21.6	157	157	235	0.4	2.1	<b>20</b>
20	23	7 × 11 × 9			20.1	34.3	274	274	392	0.6	3.0	<b>25</b>
24	28	9 × 14 × 12	80	23.5	39.7	314	314	549	0.9	4.6	<b>3.0</b>	
27.5	34			37.7	61.3	637	637	1,080	1.5	6.2	<b>35</b>	

1kN ≈ 102kgf 1N·m ≈ 0.102kgf·m

					maximum length mm
1,120 1,240 1,360 1,480					2,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,480 1,640 1,720 1,840 1,960					3,000
1,480 1,640 1,720 1,840 1,960					3,000



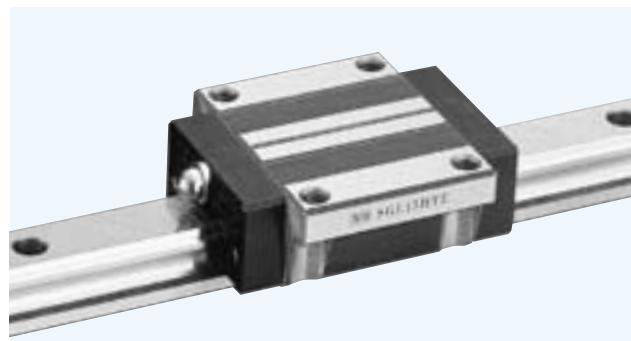
NEW

## SGL-HTE TYPE

## part number structure

example	SGL	20	HTE	B	2	T1	-589	P	/	W2	RD	F
SGL type										with rail mounting hole caps		
size										with Raydent treatment		
HTE type block										symbol for number of rails		
seal										blank   single rail		
blank   without under-seal										W2   double rails		
B   seals on both ends + under-seals										W3   triple rails		
number of blocks per rail										accuracy grade		
symbol for pre-load										blank   standard		
blank   standard										H   high		
T1   light										P   precision		
T2   medium												
												total length of rail

Note: The symbol for the number of rail does not mean the number of rails ordered.



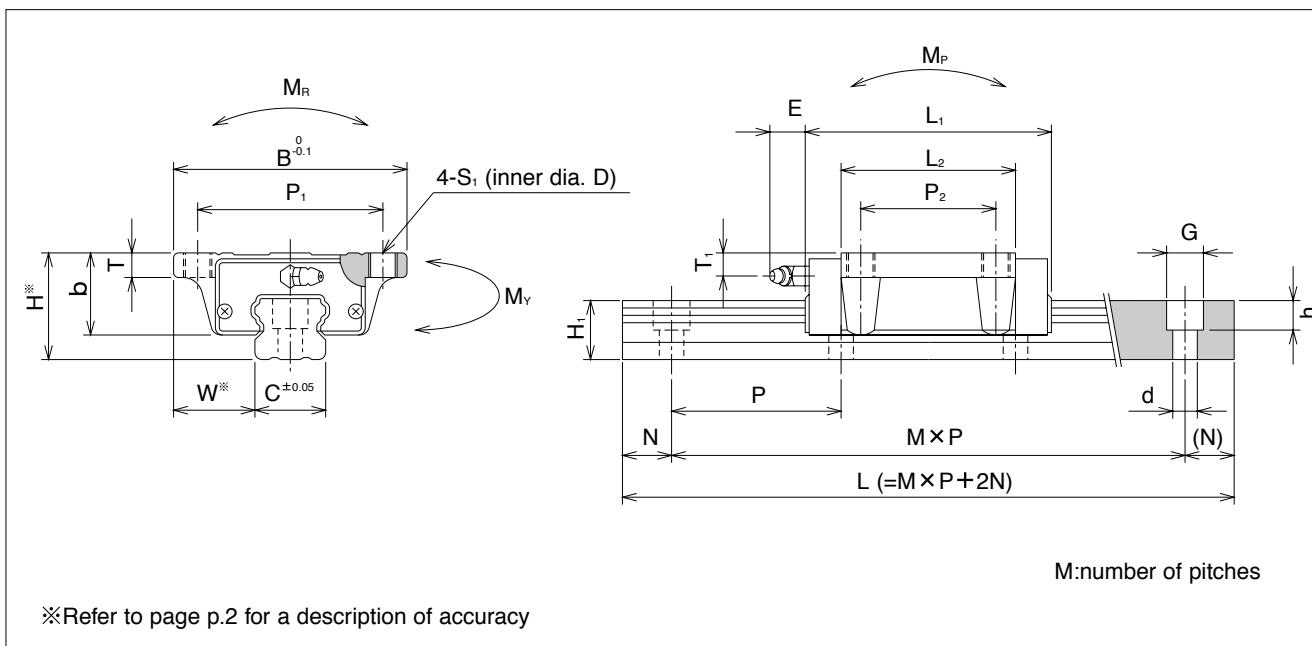
part number	assembly dimensions		block dimensions											
	H mm	W mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	P <sub>1</sub> mm	P <sub>2</sub> mm	S <sub>1</sub> mm	D mm	T mm	b mm	E mm	T <sub>1</sub> mm	grease fitting
<b>SGL15HTE</b>	24	16	47	56.5	38.5	38	30	M5	4.4	7	19.7	6	5	pressed fitting
<b>SGL20HTE</b>	30	21.5	63	71.6	53.2	53	40	M6	5.4	10.5	24	14	8	B-M6F
<b>SGL25HTE</b>	36	23.5	70	80	59	57	45	M8	6.8	12.5	29		9.5	
<b>SGL30HTE</b>	42	31	90	95.7	67.7	72	52	M10	8.5	10	32.5		9	
<b>SGL35HTE</b>	48	33	100	109	78	82	62			13	38		8.5	

part number	standard rail length L mm														
	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
<b>SGL15</b>	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
<b>SGL20</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
<b>SGL25</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
<b>SGL30</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400
<b>SGL35</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400

Rails exceeding the maximum specified length may be fabricated if joints are used. Contact NB for assistance.



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guide-rail dimensions					basic load rating		allowable static moment			mass		size
H <sub>1</sub>	C	d × G × h	N	P	dynamic C kN	static Co kN	M <sub>P</sub>	M <sub>Y</sub>	M <sub>R</sub>	block	guide rail	
mm	mm	mm	mm	mm			N · m	N · m	N · m	kg	kg/m	
13.5	15	4.5 × 7.5 × 5.3	20	60	8.6	14.2	69	69	98	0.2	1.3	<b>15</b>
16	20	6 × 9.5 × 8.5			12.7	21.6	157	157	235	0.4	2.1	<b>20</b>
20	23	7 × 11 × 9			20.1	34.3	274	274	392	0.6	3.0	<b>25</b>
24	28	9 × 14 × 12	80	23.5	39.7	314	314	549	1.0	4.6	<b>30</b>	
27.5	34			37.7	61.3	637	637	1,080	1.5	6.2	<b>35</b>	

1kN ≈ 102kgf   1N·m ≈ 0.102kgf·m

					maximum length mm
1,120 1,240 1,360 1,480					2,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,480 1,640 1,720 1,840 1,960					3,000
1,480 1,640 1,720 1,840 1,960					3,000

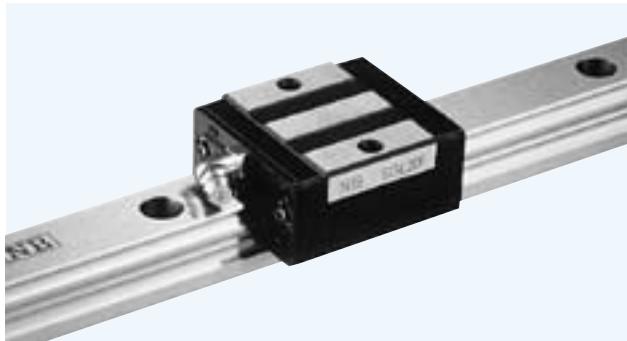


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## SGL-F TYPE

— High Rigidity Non-Flange Type — (Short Configuration)

part number structure	
example	SGL 20 F B 2 T1 - 589 D P / W2 RD F
SGL type	
size	
F type block	
seal	
blank	without under-seal
B	seals on both ends + under-seals
number of blocks per rail	
symbol for pre-load	
blank	standard
T1	light
T2	medium
size of rail installation hole	
total length of rail	
Note: The symbol for the number of rail does not mean the number of rails ordered.	



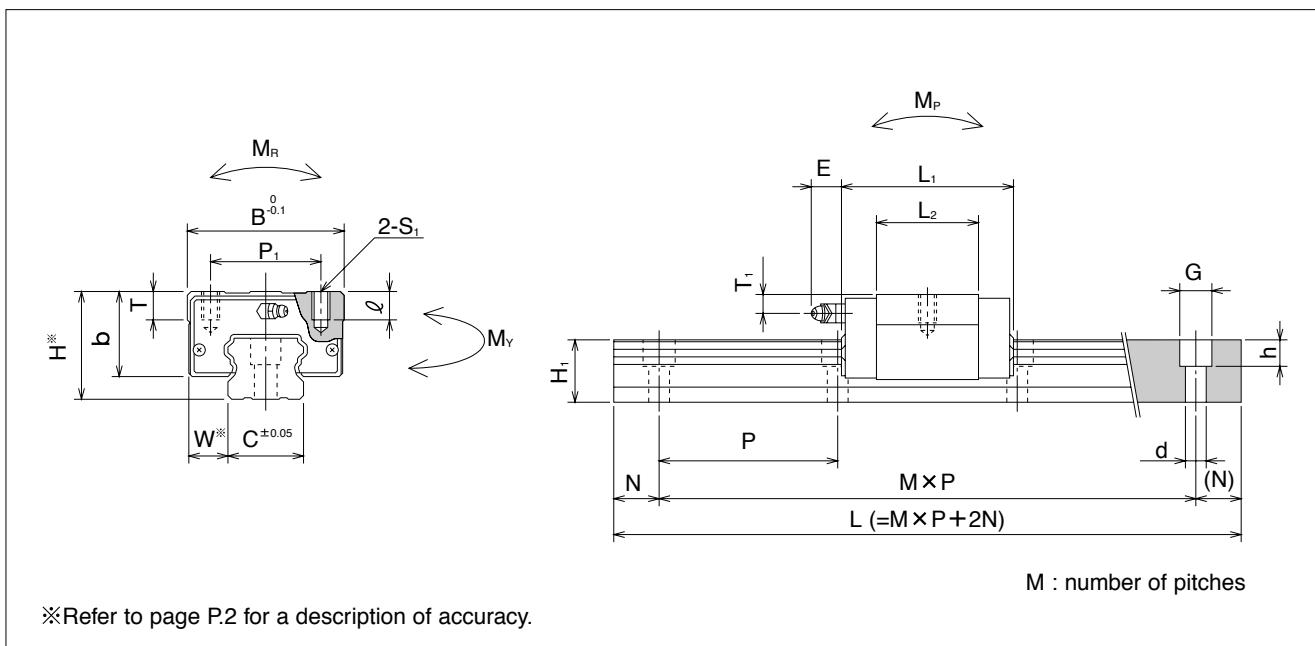
part number	assembly dimensions		block dimensions											grease fitting
	H mm	W mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	P <sub>1</sub> mm	S <sub>1</sub>	ℓ mm	T mm	b mm	E mm	T <sub>1</sub> mm		
<b>SGL15F</b>	24	9.5	34	40.7	22.7	26	M4	7	6	19.5	6	5	pressed fitting	
<b>SGL15F-D</b>													B-M6F	
<b>SGL20F</b>	28	11	42	47.9	29.5	32	M5	8	7.5	22		6		
<b>SGL25F</b>	33	12.5	48	58.9	37.7	35	M6	9	8	26		6.5		
<b>SGL30F</b>	42	16	60	68	40	40	M8	12	9	32.5		9		
<b>SGL35F</b>	48	18	70	77	46	50			13	38		8.5		

part number	standard rail length L mm															
	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	
<b>SGL15</b>	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	
<b>SGL20</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120	
<b>SGL25</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120	
<b>SGL30</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400	
<b>SGL35</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400	

Rails exceeding the maximum specified length may be fabricated if joints are used. Contact NB for assistance.



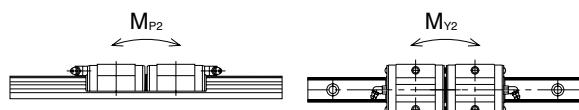
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guide-rail dimensions					basic load rating		allowable static moment			mass		size	
H <sub>1</sub>	C	d × G × h	N	P	dynamic C kN	static C <sub>0</sub> kN	M <sub>P</sub> M <sub>P2</sub> N · m	M <sub>Y</sub> M <sub>Y2</sub> N · m	M <sub>R</sub> N · m	block kg	guide rail kg/m		
mm	mm	mm	mm	mm									
13.5	15	3.5 × 6 × 4.5	60	20	5.00	8.23	33 196	33 196	57	0.1	1.3	15	
		4.5 × 7.5 × 5.3					59 353	59 353	137	0.2	2.1	20	
16	20	6 × 9.5 × 8.5			7.35	12.3	109 652	109 652	225	0.3	3.0	25	
20	23	7 × 11 × 9			11.7	19.6	123 735	123 735	319	0.5	4.6	30	
24	28	80			13.7	22.5	248 1,490	248 1,490	627	0.8	6.2	35	
27.5	34				9 × 14 × 12	21.6	35.7						

1kN ≈ 102kgf   1N·m ≈ 0.102kgf·m

					maximum length mm
1,120 1,240 1,360 1,480					2,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,480 1,640 1,800 1,960					3,000
1,480 1,640 1,800 1,960					3,000



When two blocks are used in contact.



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# SGL-TF TYPE

– High Rigidity Non-Flange Type –

part number structure											
example <b>SGL 20 TF B 2 T1 - 589 D P / W2 RD F</b>											
SGL type											
size											
TF type block											
seal											
blank [without under-seal]											
B [seals on both ends + under-seals]											
number of blocks per rail											
symbol for pre-load											
blank [standard]											
T1 [light]											
T2 [medium]											
accuracy grade											
blank [standard]											
H [high]											
P [precision]											
size of rail installation hole											
total length of rail											
Note: The symbol for the number of rail does not mean the number of rails ordered.											



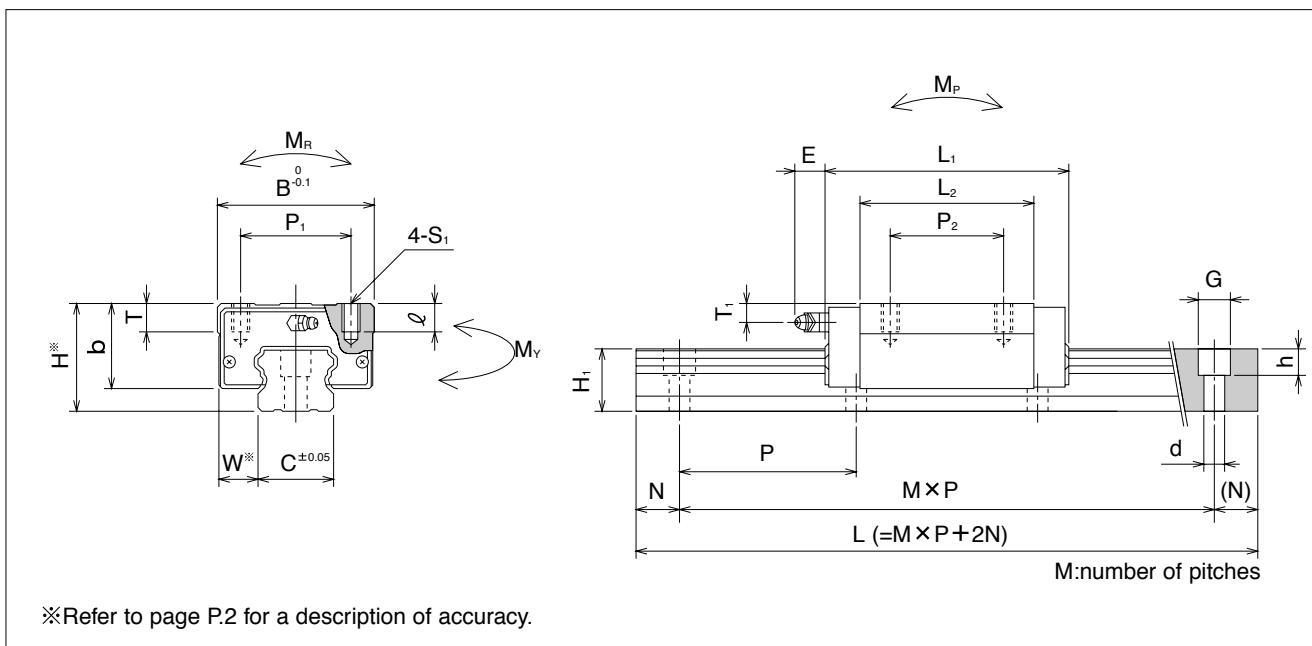
part number	assembly dimensions		block dimensions										grease fitting	
	H mm	W mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	P <sub>1</sub> mm	P <sub>2</sub> mm	S <sub>1</sub> mm	ℓ mm	T mm	b mm	E mm	T <sub>1</sub> mm	
<b>SGL15TF</b>	24	9.5	34	56.5	38.5	26	26	M4	7	6	19.5	6	5	pressed fitting
<b>SGL15TF-D</b>														
<b>SGL20TF</b>	28	11	42	65.8	47.4	32	32	M5	8	7.5	22		6	B-M6F
<b>SGL25TF</b>	33	12.5	48	80.2	59	35	35	M6	9	8	26		6.5	
<b>SGL30TF</b>	42	16	60	95.7	67.7	40	40	M8	12	9	32.5		9	
<b>SGL35TF</b>	48	18	70	109	78	50	50			13	38		8.5	

part number	standard rail length L mm														
	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
<b>SGL15</b>	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
<b>SGL20</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
<b>SGL25</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
<b>SGL30</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400
<b>SGL35</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400

Rails exceeding the maximum specified length may be fabricated if joints are used. Contact NB for assistance.



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guide-rail dimensions				basic load rating		allowable static moment			mass		size	
$H_1$	$C$	$d \times G \times h$	$N$	$P$	dynamic C kN	static Co kN	$M_P$	$M_Y$	$M_R$	block kg	guide rail kg/m	
mm	mm	mm	mm	mm			N · m	N · m	N · m	kg	kg/m	
13.5	15	3.5 × 6 × 4.5	20	60	8.6	14.2	69	69	98	0.2	1.3	<b>15</b>
		4.5 × 7.5 × 5.3			12.7	21.6	157	157	235	0.3	2.1	<b>20</b>
16	20	6 × 9.5 × 8.5			20.1	34.3	274	274	392	0.4	3.0	<b>25</b>
20	23	7 × 11 × 9	80		23.5	39.7	314	314	549	0.8	4.6	<b>30</b>
24	28				37.7	61.3	637	637	1,080	1.3	6.2	<b>35</b>
27.5	34	9 × 14 × 12										

1kN ≈ 102kgf   1N·m ≈ 0.102kgf·m

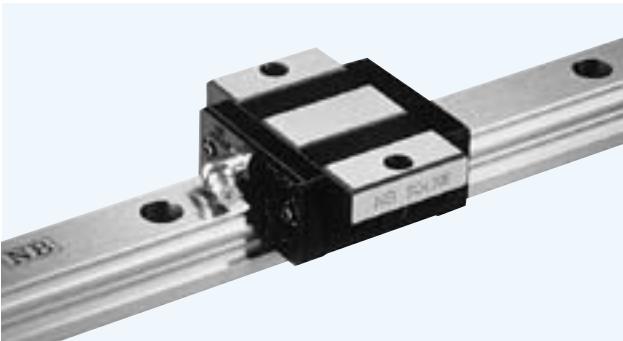
				maximum length mm
1,120 1,240 1,360 1,480				2,000
1,240 1,360 1,480 1,600				1,720 1,840 1,960 3,000
1,240 1,360 1,480 1,600				1,720 1,840 1,960 3,000
1,480 1,640 1,800 1,960				3,000
1,480 1,640 1,800 1,960				3,000



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## SGL-E TYPE

– High Rigidity Flange Type – (Short Configuration)



part number structure	
example	SGL 20 E B 2 T1 - 589 D P / W2 RD F
SGL type	
size	
E type block	
seal	
blank	without under-seal
B	seals on both ends + under-seals
number of blocks per rail	
symbol for pre-load	
blank	standard
T1	light
T2	medium
accuracy grade	
blank	standard
H	high
P	precision
size of rail installation hole	
total length of rail	
Note: The symbol for the number of rail does not mean the number of rails ordered.	

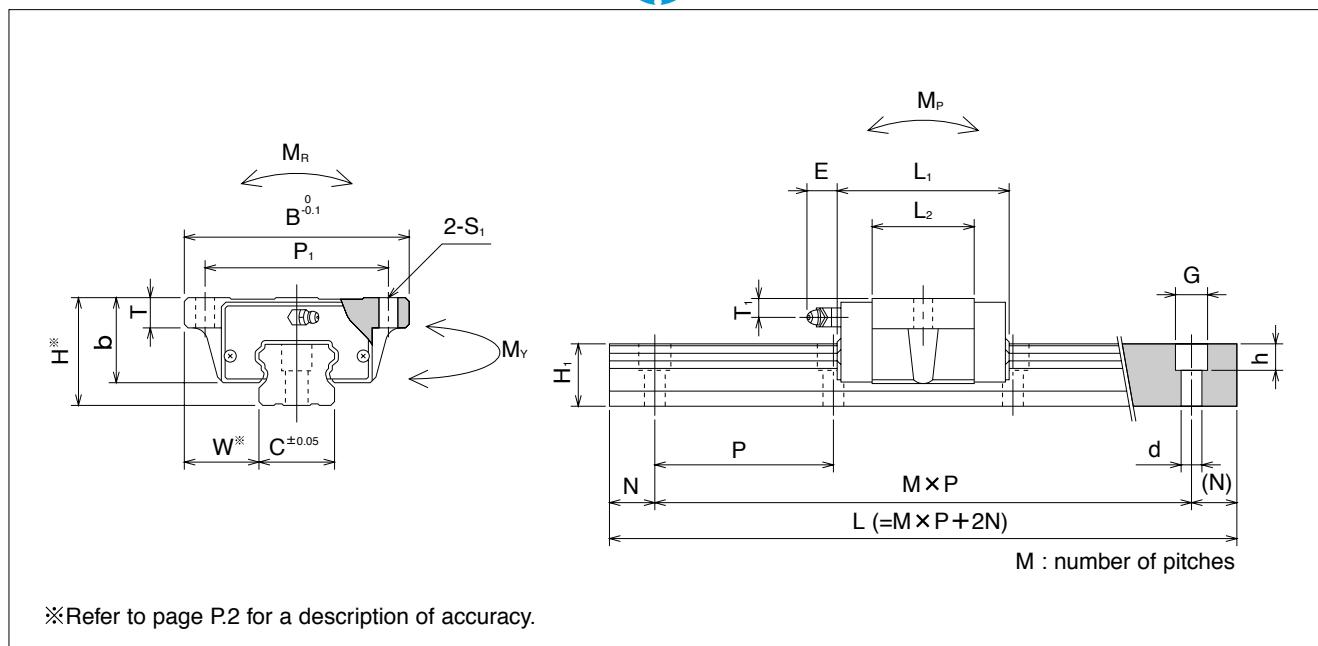
part number	assembly dimensions				block dimensions								grease fitting
	H mm	W mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	P <sub>1</sub> mm	S <sub>1</sub> mm	T mm	b mm	E mm	T <sub>1</sub> mm		
<b>SGL15E</b>	24	18.5	52	40.7	22.7	41	4.5	7	19.5	6	5		pressed fitting
<b>SGL15E-D</b>													
<b>SGL20E</b>	28	19.5	59	47.9	29.5	49	5.5	9	22		6		
<b>SGL25E</b>	33	25	73	58.9	37.7	60	7				6.5		
<b>SGL30E</b>	42	31	90	68	40	72					9		
<b>SGL35E</b>	48	33	100	77	46	82	9				8.5		
B-M6F	14												

part number	standard rail length L mm														
	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
<b>SGL15</b>	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
<b>SGL20</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
<b>SGL25</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
<b>SGL30</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400
<b>SGL35</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400

Rails exceeding the maximum specified length may be fabricated if joints are used. Contact NB for assistance.



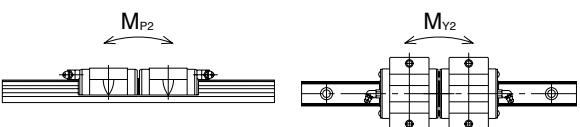
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guide-rail dimensions				basic load rating		allowable static moment			mass		size	
$H_1$	$C$	$d \times G \times h$	$N$	$P$	dynamic C kN	static Co kN	$M_P$ $M_{P2}$ N · m	$M_Y$ $M_{Y2}$ N · m	$M_R$ N · m	block kg	guide rail kg/m	
mm	mm	mm	mm	mm								
13.5	15	3.5 × 6 × 4.5	20	60	5.00	8.23	33 196	33 196	57	0.1	1.3	<b>15</b>
		4.5 × 7.5 × 5.3			7.35	12.3	59 353	59 353	137	0.2	2.1	<b>20</b>
16	20	6 × 9.5 × 8.5			11.7	19.6	109 652	109 652	225	0.4	3.0	<b>25</b>
		7 × 11 × 9		80	13.7	22.5	123 735	123 735	319	0.6	4.6	<b>30</b>
24	28				21.6	35.7	248 1,490	248 1,490	627	0.9	6.2	<b>35</b>
27.5	34	9 × 14 × 12										

1kN ≈ 102kgf   1N·m ≈ 0.102kgf·m

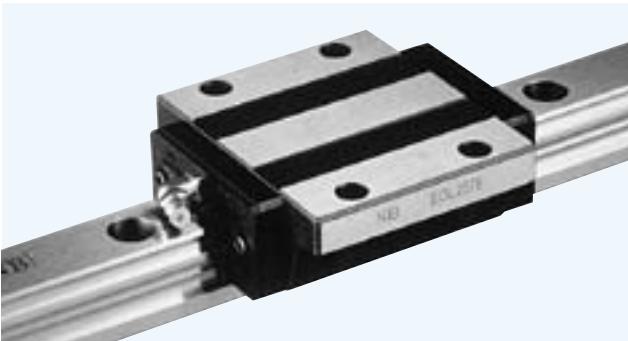
					maximum length mm
1,120 1,240 1,360 1,480					2,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,480 1,640 1,800 1,960					3,000
1,480 1,640 1,800 1,960					3,000



When two blocks are used in contact.

# SGL-TE TYPE

– High Rigidity Flange Type –



part number structure	
example	SGL 20 TE B 2 T1 - 589 D P / W2 RD F
SGL type	with rail mounting hole caps
size	with Raydent treatment
TE type block	symbol for number of rails
seal	blank single rail
blank without under-seal	W2 double rails
B seals on both ends + under-seals	W3 triple rails
number of blocks per rail	accuracy grade
symbol for pre-load	blank standard
blank standard	H high
T1 light	P precision
T2 medium	size of rail installation hole
total length of rail	
Note: The symbol for the number of rail does not mean the number of rails ordered.	

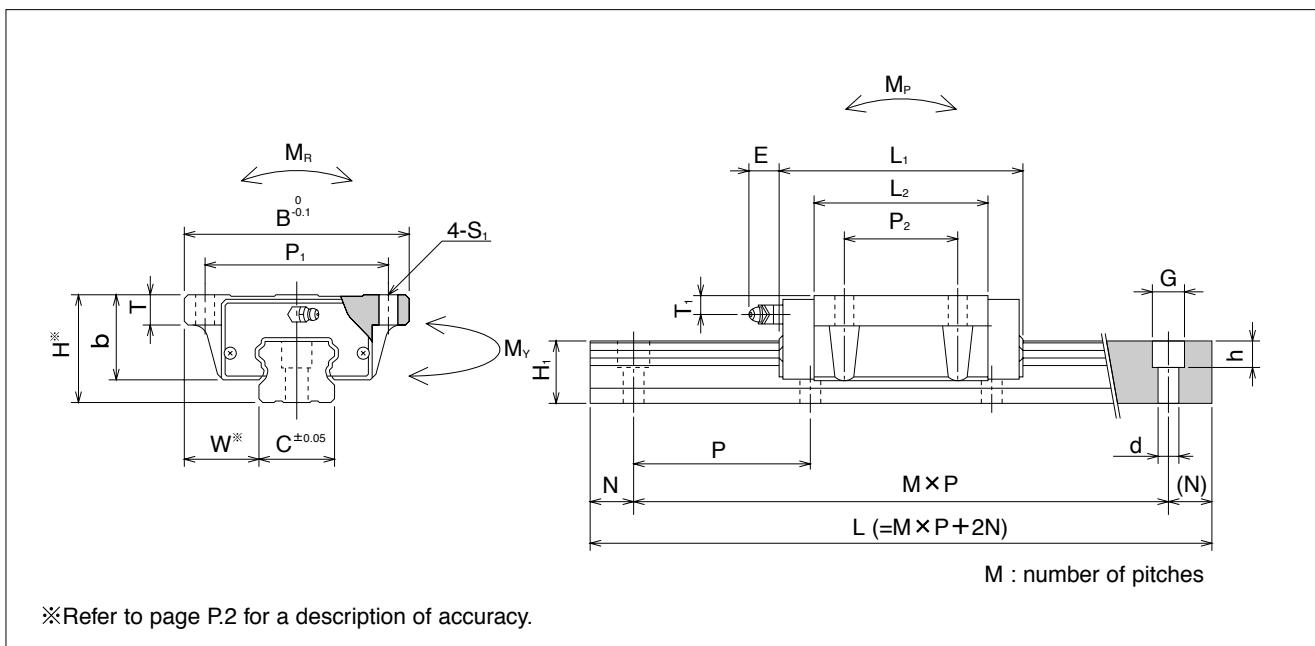
part number	assembly dimensions		block dimensions											
	H	W	B	L <sub>1</sub>	L <sub>2</sub>	P <sub>1</sub>	P <sub>2</sub>	S <sub>1</sub>	T	b	E	T <sub>1</sub>	grease fitting	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
<b>SGL15TE</b>	24	18.5	52	56.5	38.5	41	26	4.5	7	19.5	6	5	pressed fitting	
<b>SGL15TE-D</b>														
<b>SGL20TE</b>	28	19.5	59	65.8	47.4	49	32	5.5	9	22		6		
<b>SGL25TE</b>	33	25	73	80.2	59	60	35	7		26		6.5		
<b>SGL30TE</b>	42	31	90	95.7	67.7	72	40		10	32.5		9		B-M6F
<b>SGL35TE</b>	48	33	100	109	78	82	50		9	13	38		8.5	

part number	standard rail length L mm														
	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
<b>SGL15</b>	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
<b>SGL20</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
<b>SGL25</b>	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
<b>SGL30</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400
<b>SGL35</b>	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400

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guide-rail dimensions				basic load rating		allowable static moment			mass		size	
H <sub>1</sub>	C	d × G × h	N	P	dynamic C kN	static C <sub>0</sub> kg	M <sub>P</sub>	M <sub>Y</sub>	M <sub>R</sub>	block kg	guide rail kg/m	
mm	mm	mm	mm	mm			N · m	N · m	N · m			
13.5	15	3.5 × 6 × 4.5	20	60	8.6	14.2	69	69	98	0.2	1.3	<b>15</b>
		4.5 × 7.5 × 5.3			12.7	21.6	157	157	235	0.3	2.1	<b>20</b>
20	23	6 × 9.5 × 8.5			20.1	34.3	274	274	392	0.6	3.0	<b>25</b>
24	28	7 × 11 × 9	80	80	23.5	39.7	314	314	549	1.0	4.6	<b>30</b>
27.5	34			80	37.7	61.3	637	637	1,080	1.5	6.2	<b>35</b>

1kN ≈ 102kgf 1N·m ≈ 0.102kgf·m

					maximum length mm
1,120 1,240 1,360 1,480					2,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,240 1,360 1,480 1,600 1,720 1,840 1,960					3,000
1,480 1,640 1,800 1,960					3,000
1,480 1,640 1,800 1,960					3,000



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