

## 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			SGL45		
	normal	high	precision	normal	high	precision	normal	high	precision
accuracy grade	normal	high	precision	normal	high	precision	normal	high	precision
accuracy symbol	none	H	P	none	H	P	none	H	P
allowable dimensional tolerance for height H	±0.1	±0.03	-0.03~0	±0.1	±0.04	-0.04~0	±0.1	±0.05	-0.05~0
paired difference for height H	0.02	0.01	0.006	0.02	0.015	0.007	0.03	0.015	0.007
allowable dimensional tolerance for width W	±0.1	±0.03	-0.03~0	±0.1	±0.04	-0.04~0	±0.1	±0.05	-0.05~0
paired difference for width W	0.02	0.01	0.006	0.03	0.015	0.007	0.03	0.02	0.01
Running parallelism of surface C to surface A	refer to Figure 1								
Running parallelism of surface D to surface B									

Figure 1 Motion Accuracy

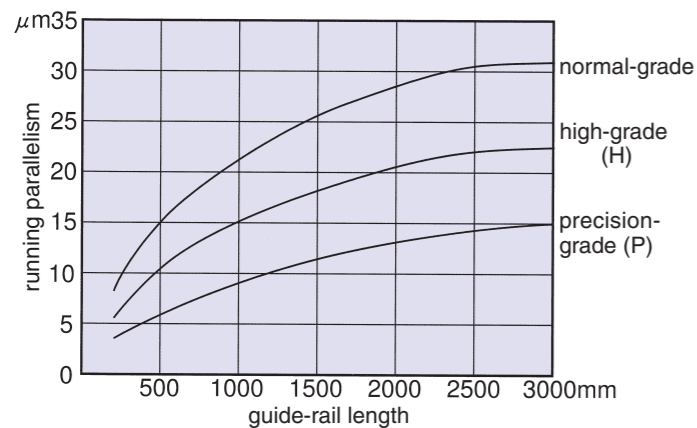
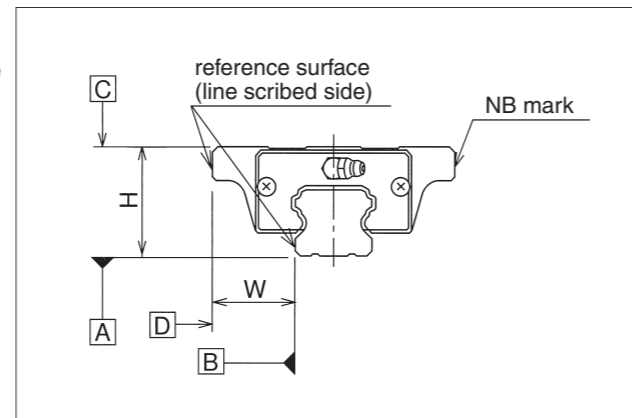


Figure 2 Accuracy



## PRE-LOAD

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

Table 2 Pre-Load Symbol and Radial Clearance

unit/µm

pre-load category	standard	light	medium
pre-load symbol	none	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
SGL45	-10~+5	-25~-10	-40~-25

Table 3 Operating Condition and Pre-Load

category	symbol	operating condition
standard	none	Minute vibration is applied. Precision motion is required. Moment in a given direction is applied.
light	T1	Light vibration is applied. Light moment is applied. Moment is applied.
medium	T2	Shock/vibration is applied. Over-hang load is applied. Torsional load is applied.



### NIPPON BEARING CO., LTD.

2833 Chiya, Ojiya-city, Niigata-pref., 947-8503 JAPAN  
 Phone:+81-258-82-0011 Fax:+81-258-81-1135  
<http://www.nb-linear.co.jp>

#### NB Corporation of America

930 Muirfield Drive, Hanover Park, IL 60133  
 Phone:(630)295-8880 Fax:(630)295-8881  
 Toll Free:(800)521-2045

<http://www.nbcorporation.com>  
 info@nbcorporation.com

#### Western Regional Office

2157 O'Toole Ave., Suite D, San Jose, CA 95131  
 Phone:(408)435-1800 Fax:(408)435-1850  
 Toll Free:(888)562-4175

#### Eastern Regional Office

52 First Street, Hackensack, NJ 07601  
 Phone:(201)487-1441 Fax:(201)487-7107  
 Toll Free:(800)981-8190

#### NB Europe B.V.

Boekweitstraat 21, 2153 GK Nieuw-Vennep, The Netherlands  
 Phone:+31(0)252 463 200 Fax:+31(0)252 463 209  
<http://www.nbeurope.com>  
 info@nbeurope.com

No. 5600

First Edition:Jun.8,2007



NEW ITEM  
 SGL 6-Hole type

# SLIDE GUIDE

SGL-HTEX type

BETTER HOLD for BETTER PRECISION

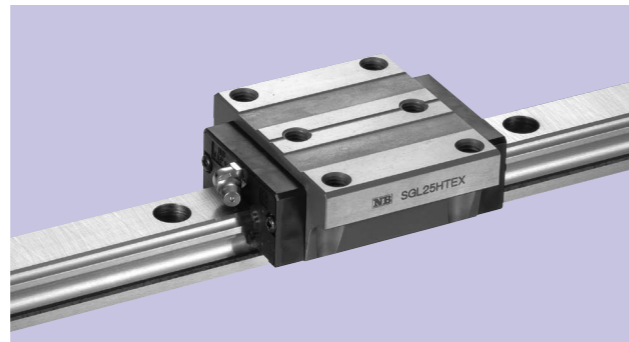


ISO9001/ISO14001



NIPPON BEARING CO., LTD.

# SGL-HTEX TYPE



part number structure example **SGL 15 HTEX B 2 T1-589 P / W2 FS LB F J KGL**

SGL type  
size  
block style  
seal  
number of blocks per rail  
symbol for pre-load  
total length of rail  
accuracy grade

blank	With side-seals
B	With side seals + under-seals
BW	With double seals + under-seals
BS	B + scraper

blank	standard
T1	light
T2	medium

blank	standard
H	high
P	precision

symbol for grease

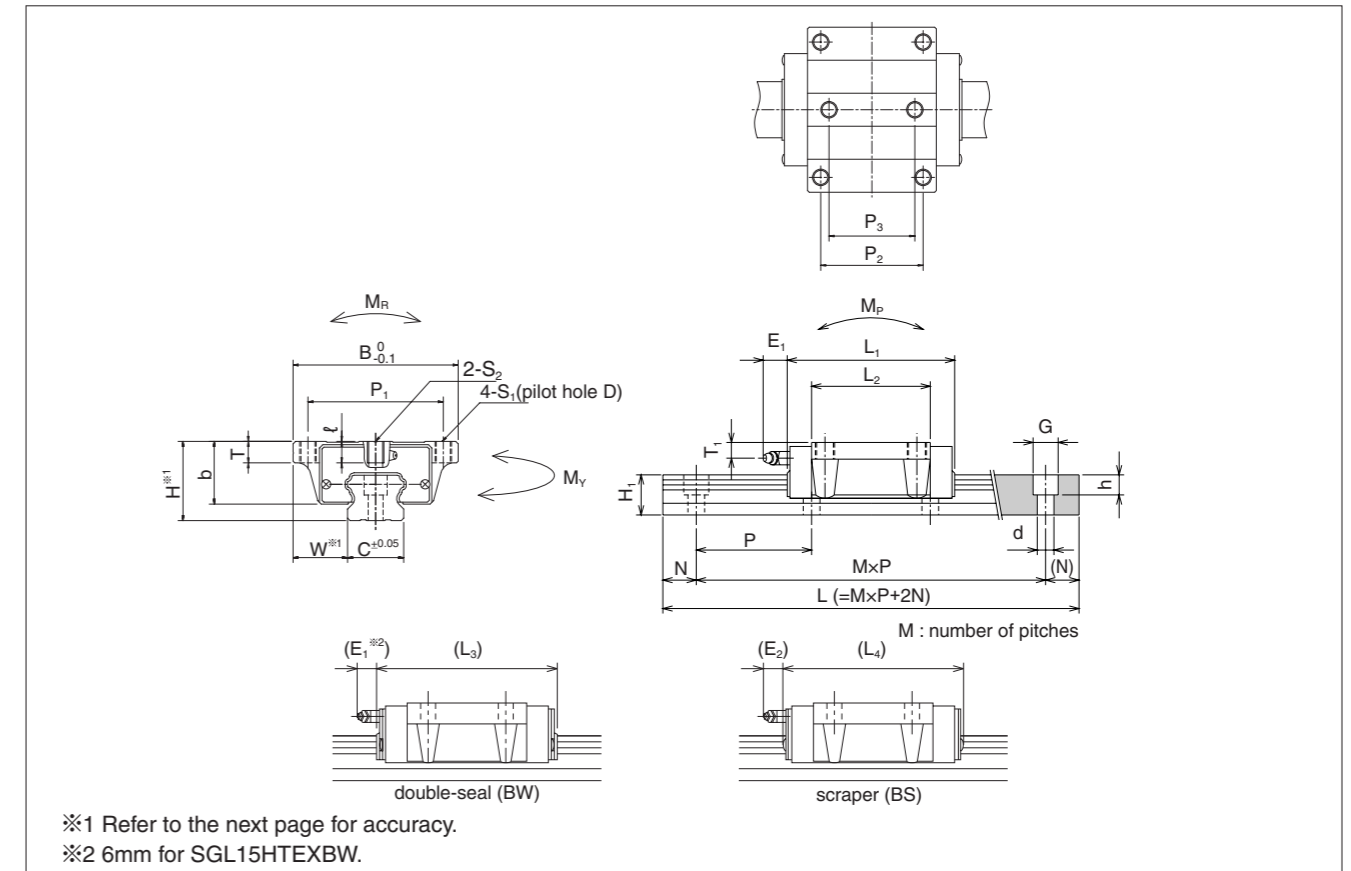
blank	standard grease
KGL	lithium-based grease
KGU	urea-based grease
KGF	anti-fretting grease
GK	K-grease

with bellows  
with rail mounting hole caps  
with low temperature black chrome treatment  
with Fiber Sheet  
Fiber sheet comes only with standard grease.

symbol for number of rails

blank	single rail
W2	double rails
W3	triple rails

The symbol for the number of rails 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>	L <sub>3</sub>	L <sub>4</sub>	P <sub>1</sub>	P <sub>2</sub>	S <sub>1</sub>	D	T	P <sub>3</sub>	S <sub>2</sub>	ℓ	b	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
SGL15HTEX	24	16	47	56.5	38.5	62.7	63.1	38	30	M5	4.4	7.5	26	M5	6	19.7	
SGL20HTEX	30	21.5	63	71.6	53.2	77.8	78.2	53	40	M6	5.4	10.5	35	M6	8	24	
SGL25HTEX	36	23.5	70	80	59	86.4	87.2	57	45	M8	6.8	12.5	40	M8	10	29	
SGL30HTEX	42	31	90	95.7	67.7	104.3	103.3	72	52	M10	8.5	10	44	M10	10	32.5	
SGL35HTEX	48	33	100	109	78	117.6	116.6	82	62			13	52		13	38	
SGL45HTEX	60	37.5	120	139	102	147.5	148	100	80	M12	10.5	15	60	M12	14	50	

				guide-rail dimensions					basic load rating			allowable static moment			mass		size
E <sub>1</sub>	E <sub>2</sub>	T <sub>1</sub>	grease fitting	H <sub>1</sub>	C	dxGxh	N	P	dynamic C	static Co	M <sub>p</sub>	M <sub>y</sub>	M <sub>r</sub>	block	guide rail		
mm	mm	mm		mm	mm	mm	mm	mm	kN	kN	N·m	N·m	N·m	kg	kg/m		
5	5.4	5	pressed fitting	13.5	15	4.5x7.5x5.3	20	60	10.6	16.2	100	100	127	0.2	1.3	15	
14	13.3	8	B-M6F	16	20	6x9.5x8.5			18.4	27.5	227	227	296	0.4	2.1	20	
	13.1	9.5		20	23	7x11x9			24.8	36.3	335	335	437	0.6	3.0	25	
	14	9		24	28	9x14x12			33.6	49.2	529	529	716	1.0	4.6	30	
		8.5		27.5	34		80	46.7	64.8	796	796	1,188	1.5	6.2	35		
16	16	10	B-PT1/8	36.5	45	14x20x17	22.5	105	74.8	101.2	1,553	1,553	2,312	3.1	10.5	45	

1kN ≅ 102kgf 1N·m ≅ 0.102kgf·m

part number	standard rail length L														
	mm														
SGL15	160	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000
SGL20	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
SGL25	220	280	340	400	460	520	580	640	700	760	820	880	940	1,000	1,120
SGL30	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400
SGL35	280	360	440	520	600	680	760	840	920	1,000	1,080	1,160	1,240	1,320	1,400
SGL45	570	675	780	885	990	1,095	1,200	1,305	1,410	1,515	1,620	1,725	1,830	1,935	2,040

								maximum length	
								mm	
1,120	1,240	1,360	1,480					2,000	
1,240	1,360	1,480	1,600	1,660	1,720	1,840	1,960	3,000	
1,240	1,360	1,480	1,600	1,660	1,720	1,840	1,960	3,000	
1,480	1,640	1,720	1,800	1,880	1,960			3,000	
1,480	1,640	1,720	1,800	1,880	1,960			3,000	
2,145	2,250	2,355	2,460	2,565	2,670	2,775	2,880	2,985	3,000

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