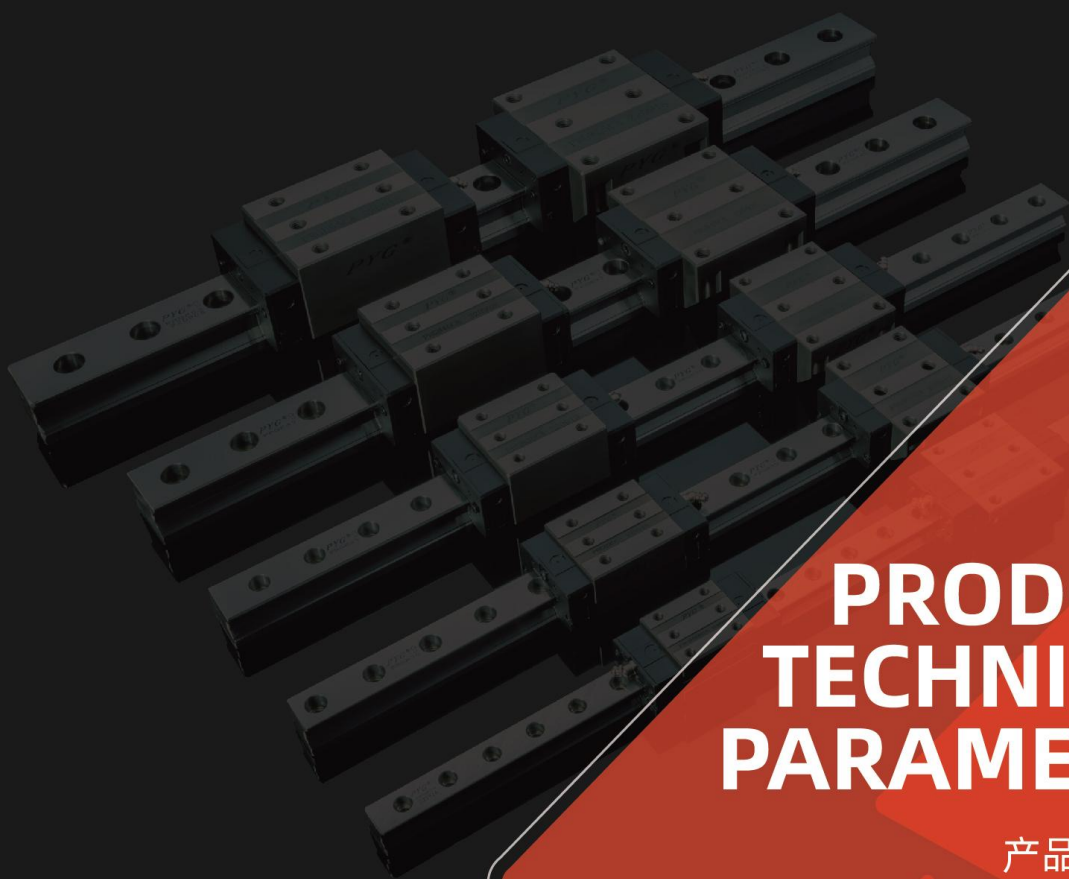


PG 鹏银精密



PRODUCT TECHNICAL PARAMETER

产品技术参数

浙江鹏银科技发展有限公司

PYG Linear Guides Series

1-9 Installation of Linear Guides	3
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(1) Series

Table 2-1

Series	Assembly Height	Load Type	Square Type Mounting from Top	Flange Type		
				Mounting from Top	Mounting from Bottom	Mounting from Top or Bottom
PHG	high	heavy load	PHGH-CA	-	-	-
		super heavy load	PHGH-HA	-	-	-
	low	heavy load	-	PHGW-CA	PHGW-CB	PHGW-CC
		super heavy load	-	PHGW-HA	PHGW-HB	PHGW-HC
PEG	low	medium load	PEGH-SA	PEGW-SA	PEGW-SB	-
		heavy load	PEGH-CA	PEGW-CA	PEGW-CB	-
PMGN	-	standard	PMGN-C	-	-	-
		long	PMGN-H	-	-	-
PMGW	-	standard	PMGW-C	-	-	-
		long	PMGW-H	-	-	-

(2) Precision Level

Table 2-2

series	non-interchangeable type					interchangeable type		
	C	H	P	SP	UP	C	H	P
PHG	●	●	●	●	●	●	●	●
PEG	●	●	●	●	●	●	●	●
PMGN	●	●	●			●	●	●
PMGW	●	●	●					

(3) Preload

Table 2-3

series	non-interchangeable type			interchangeable type	
	Z0	ZA	ZB	Z0	ZA
PHG	●	●	●	●	●
PEG	●	●	●	●	●

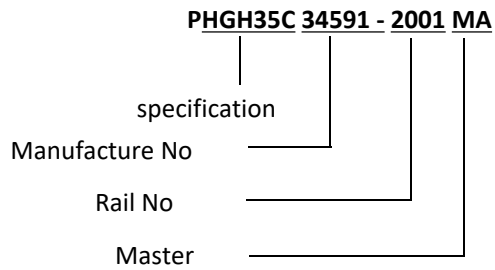
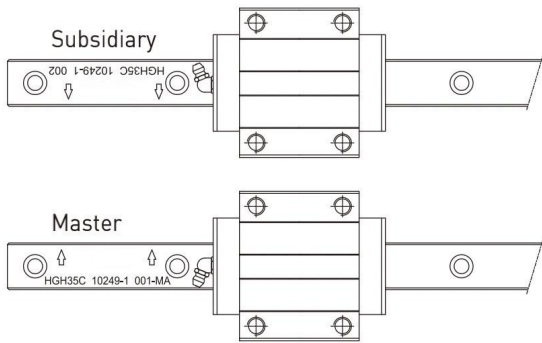
series	non-interchangeable type					interchangeable type		
	ZF	Z0	Z1	Z2	Z3	ZF	Z0	Z1
PMGN	●	●	●			●	●	●
PMGW	●	●	●					

1-9 Installation of Linear Guide

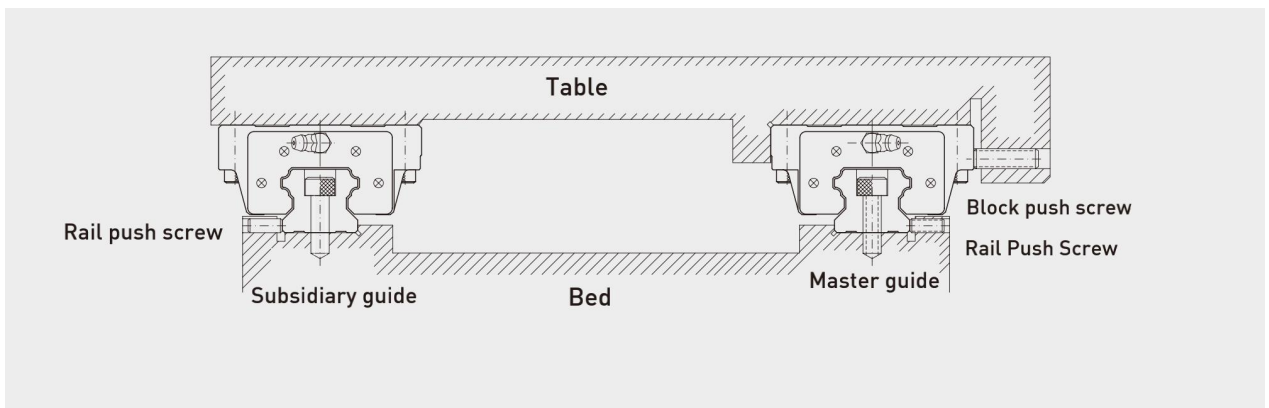
The linear guide should be set the installation methods according to the working table situation, such as the degree of impacts and vibrations as well as the required running accuracy.

1-9-1 Master and Subsidiary Guide

For non-interchangeable type linear guide, there are some difference between the master guide and subsidiary guide, the accuracy of the master guide's datum plane is better than the subsidiary and it can be a reference side for installation.

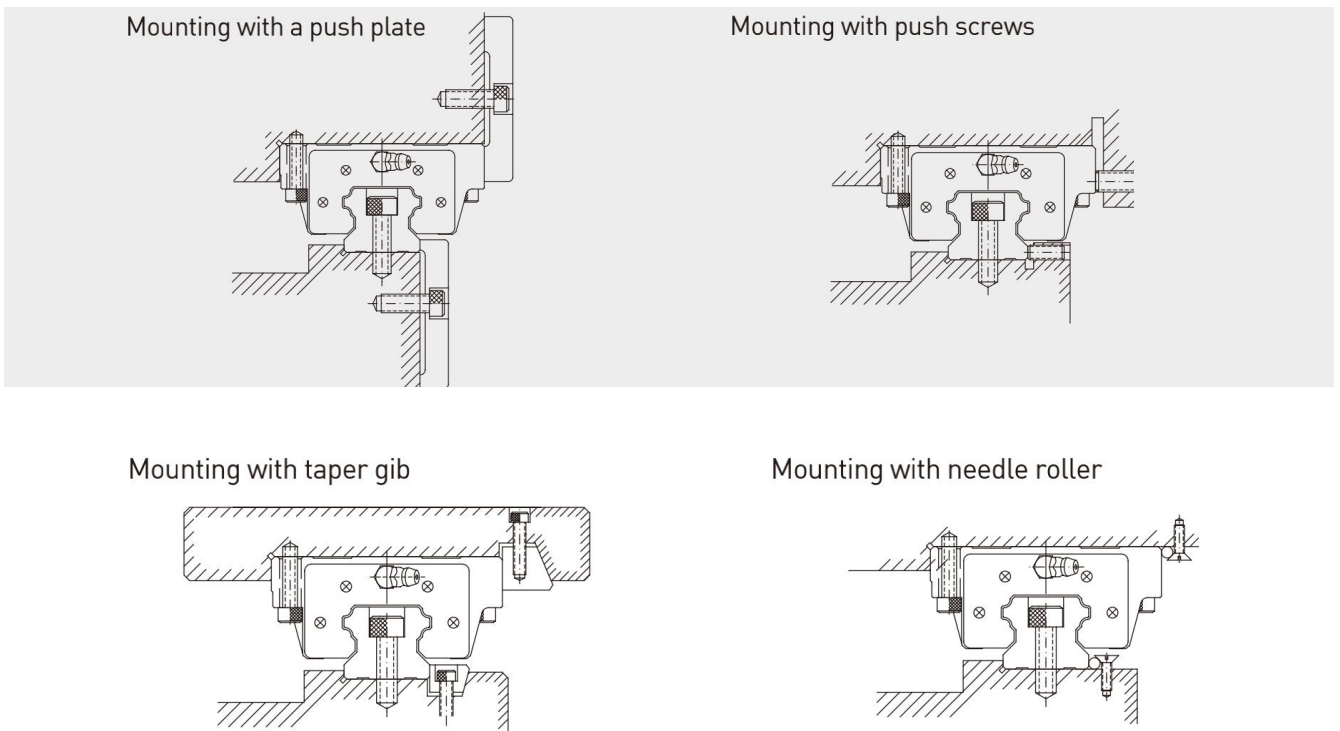


1-9-2 The table is subjected to vibration and impact force, require high rigidity and high precision installation



(1) Mounting Methods

When the table is subjected to vibrations and impact force, the linear rails and blocks are likely to be displaced which will affect the operation precision. To avoid the similar situation, we suggest to use following installation methods to keep operation precision.



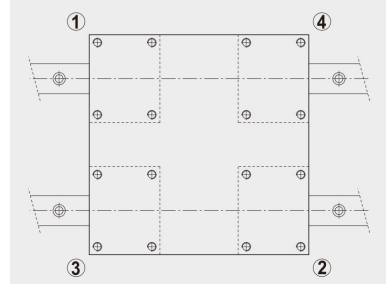
(2) Linear rail installation

- 1.remove burrs and particles from base mounting surface using oil stone and rag(always clean the mounting surface)
- 2.Place the straight edge in the middle of base
- 3.Confirm the straightness of rail mounting shoulder (repeat for the other side)
- 4.Clean linear guide rail mounting surface.(always clean the mounting surface)
- 5.Check the drawing of installation
- 6.Install rail mounting bolts loosely

7. Install the shoulder plates loosely, then tighten with specified torque
8. Torque down rail mounting bolts, follow the correct tightening sequence
9. Confirm the straightness (lateral) of master rail
10. Confirm the 2nd rail straightness (lateral) and parallelism (lateral) against master rail. Do not move the straight edge.
11. Confirm the height error between master rail and 2nd rail. Do not move the straight edge.
12. If you do not have straight edge, check parallelism of master and 2nd rail using the following method
13. Refer to catalog for mounting accuracy requirements
14. Attach moving table, check that the table moves smoothly
15. Confirm the straightness (vertical) at table center, make sure it is within your requirements.
16. Confirm the straightness (lateral) at table center, make sure it is with your requirements.

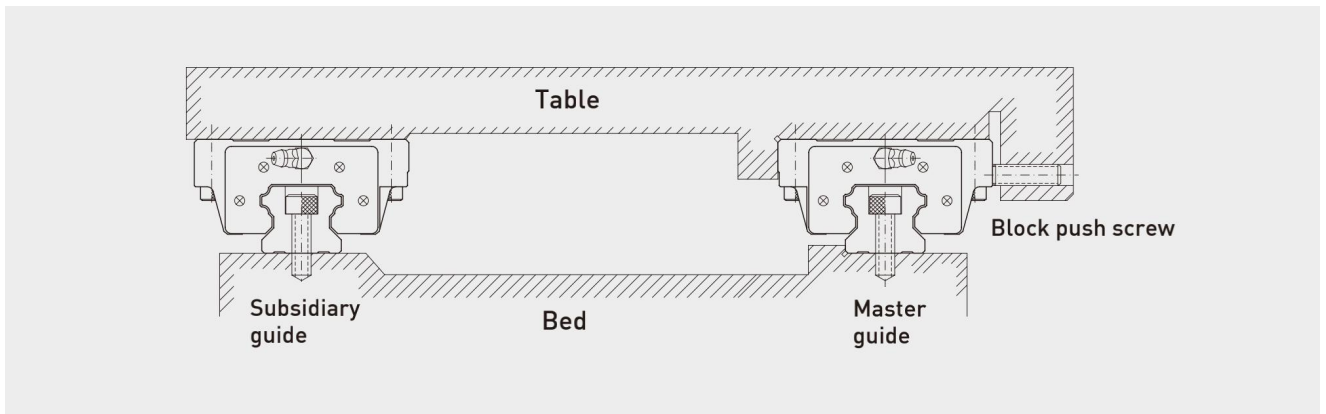
(3) Linear guide installation

1. Place the table on the blocks and tighten with the mounting bolts
2. Push the blocks against the datum plane of the table and position the table by tightening the push screws.
3. The table can be fixed uniformly by tightening the mounting bolts on master guide side and subsidiary side in 1 to 4 sequences.



1-9-3 Installation of the master guide without push screws

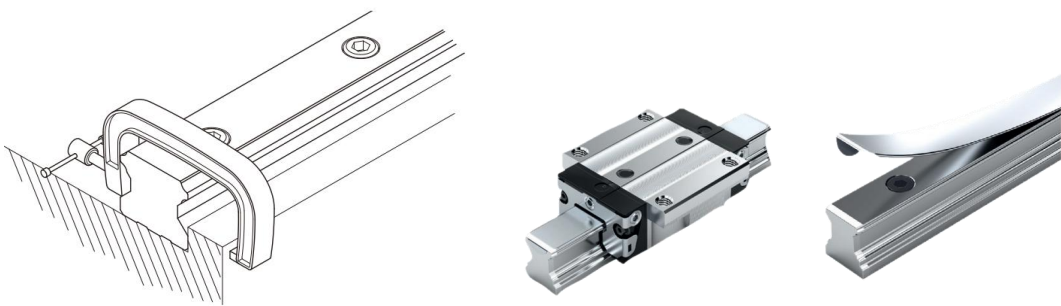
To ensure parallelism between the subsidiary guide and the master guide without push screws, the following rail installation methods are recommended, the block installation is the same as mentioned previously.



(1) Installation of the rail on the master guide side

Using a vice

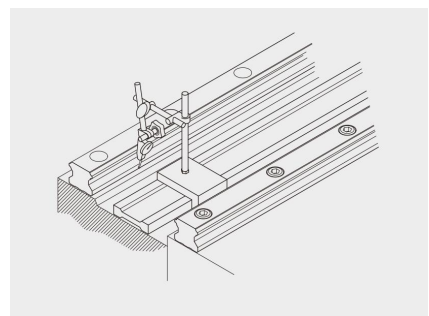
Place the rail into the mounting plane of the bed. Tighten the mounting bolts temporarily, then use a vice to push the rail against the side datum plane of the bed. Tighten the mounting bolts in sequence to the specified torque.



(2) Installation of the rail on the subsidiary guide side

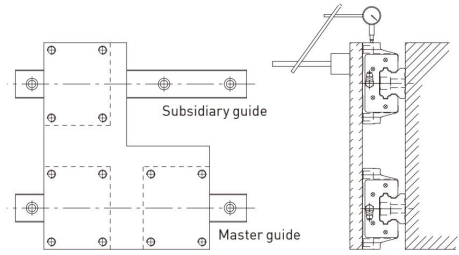
➤ Straight edge method

Set a straight edge between the rails and straighten it by using a dial gauge to keep parallel to the side datum plane of the rail on the master guide side, use the dial gauge to obtain the straight alignment of the rail on the subsidiary guide side. When the rail on the subsidiary guide side is parallel to the master side, tighten the mounting bolts in sequence from one end of the rail to the other.



➤ To move the table

Fix two blocks on the master guide side to the table. Temporarily fix the rail and one block on the subsidiary guide side to the bed and the table. Fix a dial gauge stand on the table surface and bring it into contact with the side of the block on the subsidiary guide side. Move the table from one end of the rail to the other. While aligning the rail on the subsidiary side parallel to the rail on the master guide side, tighten the bolts in sequence.

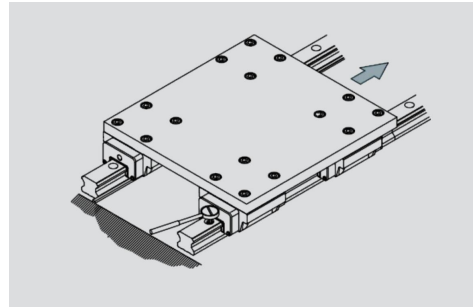


(2) Installation of the rail on the subsidiary guide side

➤ Following the master guide

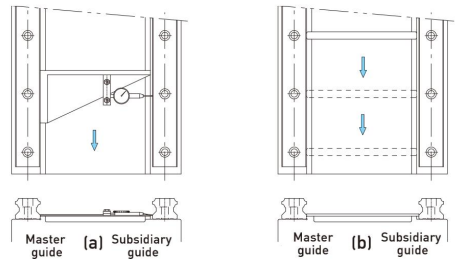
When a rail on the master guide side is correctly tightened, fix both blocks on the master guide side and one of the two blocks on the subsidiary guide side completely to the table.

When moving the table from one end of the rail, tighten the mounting bolts on the subsidiary guide side completely.



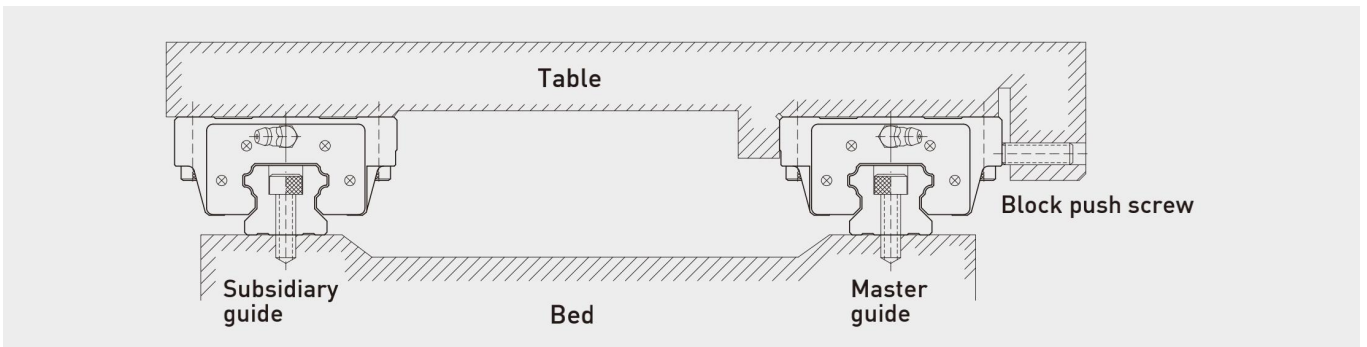
➤ Special jig

Use a special jig to ensure the linear rail position on the subsidiary guide side. Tighten the mounting bolts to the specified torque in sequence.



1-9-4 Installation method when no lateral positioning assembly surface

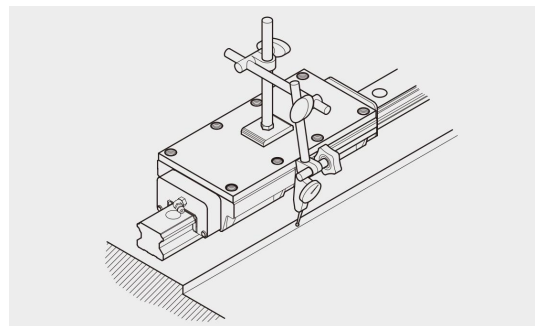
When there is no lateral positioning assembly surface, to ensure the parallelism of master guide and subsidiary guide, the linear guide can be installed as follows:



(1) Installation of the subsidiary guide

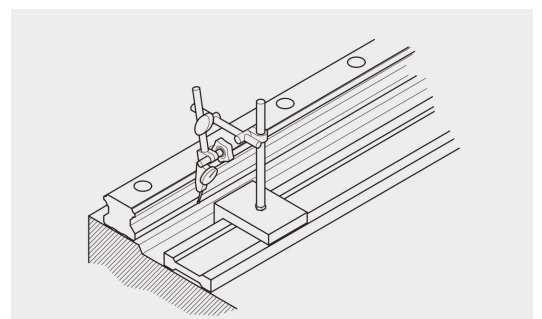
➤ Using a provisional datum plane

Two blocks are fixed in close contact by the measuring plate. A datum plane provided on the bed is used for straight alignment of the rail from one end to the other. Move the blocks and tighten the mounting bolts to the specified torque in sequence.



➤ Using a straight edge

Use a dial gauge and a straight edge to confirm the straightness of the side datum plane of the rail from one end to the other. Make sure the mounting bolts are tightened securely in sequence.



2-1 PHG linear guide - Balls type Linear Guide

PHG linear guide means heavy load ball linear guide which is designed with four row single circular arc groove structure, by integrating the most optimal structure to bear heavy load, compared to other traditional linear guide, it features high rigidity, equal load rating from all directions and self-aligning, the detailed advantage as follows:

2-1-1 PHG series Feature

1) Self-aligning capability

When installing the linear guide, because of the circular arc groove structure $DF (45^\circ - 45^\circ)$, the elastic deformation of steel balls and the shift of contact points, the linear guide block also can absorb the errors of installing, to reach self-aligning and keep high precision smooth movements.

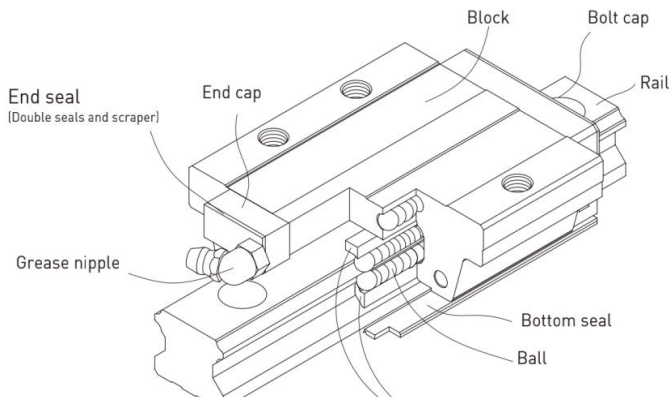
2) Interchangeability

Because of the strict precision dimensional control for linear guide, the dimensional tolerance of PHG linear guide can be kept in a certain reasonable range, as well as a retainer is added to prevent the balls from falling out when the blocks are removed from the the rail, so the client can purchase blocks or rails individually, this is interchangeability for some precision parts.

3) High rigidity in all four directions

Because of four row circular arc groove design, as well as the balls with 45° contact surface, the linear guide can reach equal load from the radial, reverse radial and lateral directions, furthermore, the circular arc groove provides a wide-contact width between the balls and the groove raceway allowing large h rigidity.

2-1-2 PHG Structure



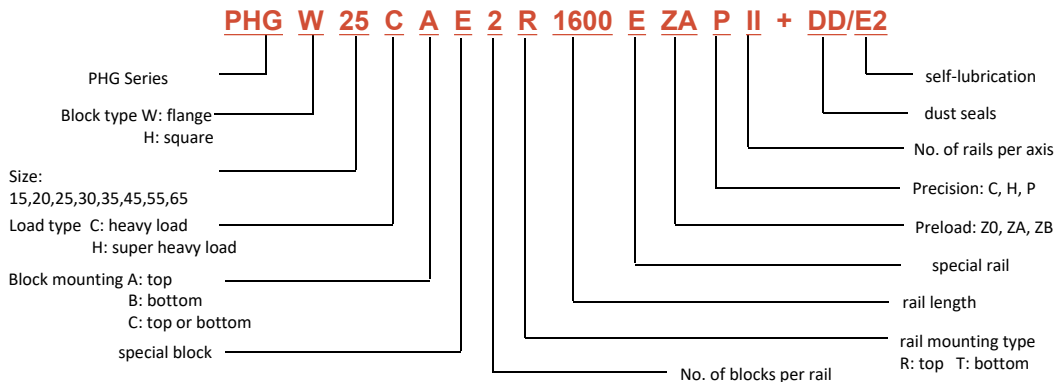
Rolling circulation system: Block, Rail, End Cap, Steel Balls and Retainer
 Lubrication system: Grease Nipple and Piping joint
 Dust protection system: Scraper, End Seal, Bottom Seal, Bolt Cap, Double Seals

2-1-3 PHG Series Specification

PHG series has two features: Interchangeable and Non-interchangeable. Both of them have the same size and specification, the only difference between the two types is that the interchangeable type of blocks and rails can be freely exchanged, more convenient for some clients' requirements.

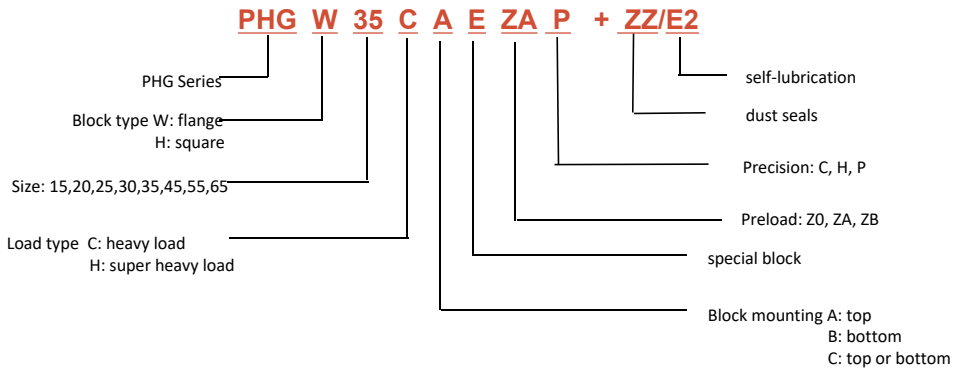
We have graphic definition as follows:

1) Non-interchangeable Type

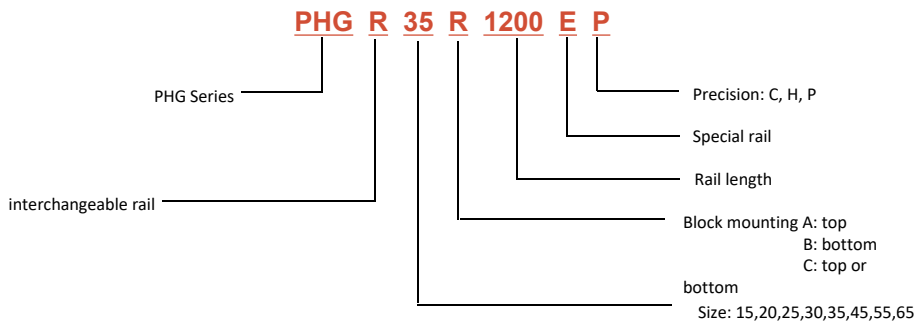


2) Interchangeable Type

➤ Interchangeable block mode



➤ Interchangeable rail mode



2-1-4 PHG SERIES Heavy Load Ball Linear Guide

(1) Blocks Types

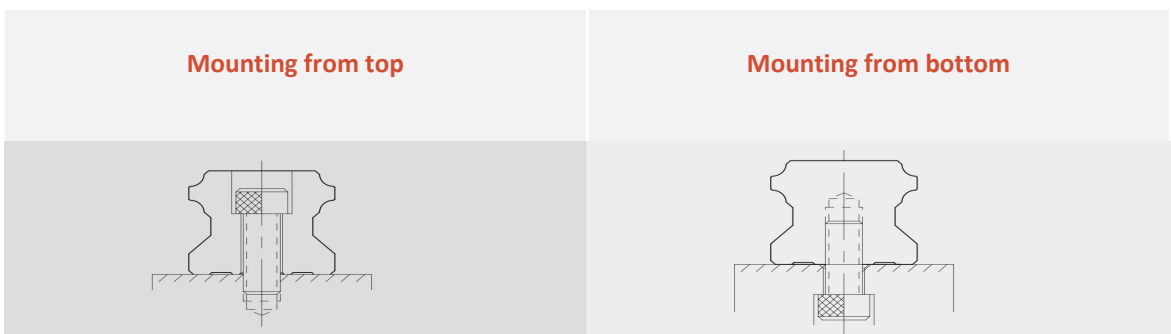
We have Flange type and Square type, the graphic illustration as follows:

Table 2.4

Type	Mode	Shape	Height (mm)	Rail length (mm)	Main Application
square	PHGH-CA		26	100	<ul style="list-style-type: none"> ➤ Machine centers ➤ NC lathes ➤ Grinding machines ➤ Precision Machining Machines ➤ Heavy cutting machines ➤ Automation devices ➤ Transportation equipment ➤ Measuring equipments
	PHGH-HA		-	-	
Flange	PHGW-CA		24	100	
	PHGW-HA		-	-	
	PHGW-CB		24	100	
	PHGW-HB		-	-	
	PHGW-CC		24	100	
	PHGW-HC		-	-	

Rail Types

Table 2.5



2-1-5 Precision Level

The precision of PHG linear guides can be classified into normal (C), high (H), precision (P), super precision (SP), ultra precision (UP), the customer can choose the suitable precision as equipment's accuracy.

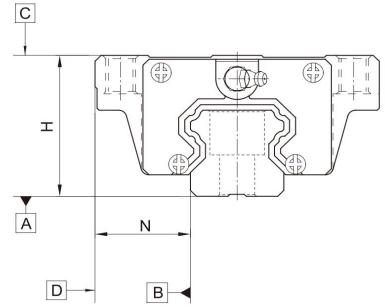


Table 2.6 Precision table of assemblies (mm)

Type	PHG - 15, 20				
Precision Grade	C	H	P	SP	UP
Dimensional tolerance of height H	±0.1	±0.03	0-0.03	0-0.015	0-0.008
Dimensional tolerance of width N	±0.1	±0.03	0-0.03	0-0.015	0-0.008
Variation of height H in pairs	0.02	0.01	0.006	0.004	0.003
Variation of width N in pairs	0.03	0.01	0.006	0.004	0.003
Running parallelism of block surface C to surface A	See table 2.14				
Running parallelism of block surface D to surface B	See table 2.14				

Table 2.7 Precision table of assemblies (mm)

Type	PHG - 25, 30, 35				
Precision Grade	C	H	P	SP	UP
Dimensional tolerance of height H	±0.1	±0.04	0-0.04	0-0.02	0-0.01
Dimensional tolerance of width N	±0.1	±0.04	0-0.04	0-0.02	0-0.01
Variation of height H in pairs	0.02	0.015	0.007	0.005	0.003
Variation of width N in pairs	0.03	0.015	0.007	0.005	0.003
Running parallelism of block surface C to surface A	See table 2.14				
Running parallelism of block surface D to surface B	See table 2.14				

Table 2.8 Precision table of assemblies (mm)

Type	PHG - 45, 55				
Precision Grade	C	H	P	SP	UP
Dimensional tolerance of height H	±0.1	±0.05	0-0.05	0-0.03	0-0.02
Dimensional tolerance of width N	±0.1	±0.05	0-0.05	0-0.03	0-0.02
Variation of height H in pairs	0.03	0.015	0.007	0.005	0.003
Variation of width N in pairs	0.03	0.02	0.01	0.007	0.005
Running parallelism of block surface C to surface A	See table 2.14				
Running parallelism of block surface D to surface B	See table 2.14				

Table 2.9 Precision table of assemblies (mm)

Type	PHG - 65				
Precision Grade	C	H	P	SP	UP
Dimensional tolerance of height H	±0.1	±0.07	0-0.07	0-0.05	0-0.03
Dimensional tolerance of width N	±0.1	±0.07	0-0.07	0-0.05	0-0.03
Variation of height H in pairs	0.03	0.02	0.01	0.007	0.005
Variation of width N in pairs	0.03	0.025	0.015	0.01	0.007
Running parallelism of block surface C to surface A	See table 2.14				
Running parallelism of block surface D to surface B	See table 2.14				

(2) Precision of interchangeable linear guide

Table 2.10 Precision table for interchangeable (mm)

Type	PHG - 15, 20		
Precision Grade	C	H	P
Dimensional tolerance of height H	± 0.1	± 0.03	0-0.03
Dimensional tolerance of width N	± 0.1	± 0.03	0-0.03
Variation of height H in pairs	0.02	0.01	0.006
Variation of width N in pairs	0.02	0.01	0.006
Running parallelism of block surface C to surface A	See table 2.14		
Running parallelism of block surface D to surface B	See table 2.14		

Table 2.11 Precision table for interchangeable (mm)

Type	PHG - 25, 30, 35		
Precision Grade	C	H	P
Dimensional tolerance of height H	± 0.1	± 0.04	0-0.02
Dimensional tolerance of width N	± 0.1	± 0.04	0-0.02
Variation of height H in pairs	0.02	0.015	0.007
Variation of width N in pairs	0.03	0.015	0.007
Running parallelism of block surface C to surface A	See table 2.14		
Running parallelism of block surface D to surface B	See table 2.14		

Table 2.12 Precision table for interchangeable(mm)

Type	PHG - 45, 55		
Precision Grade	C	H	P
Dimensional tolerance of height H	± 0.1	± 0.05	0-0.025
Dimensional tolerance of width N	± 0.1	± 0.05	0-0.025
Variation of height H in pairs	0.03	0.015	0.007
Variation of width N in pairs	0.03	0.02	0.01
Running parallelism of block surface C to surface A	See table 2.14		
Running parallelism of block surface D to surface B	See table 2.14		

Table 2.13 Precision table for interchangeable(mm)

Type	PHG - 65		
Precision Grade	C	H	P
Dimensional tolerance of height H	± 0.1	± 0.07	0-0.035
Dimensional tolerance of width N	± 0.1	± 0.07	0-0.035
Variation of height H in pairs	0.03	0.02	0.01
Variation of width N in pairs	0.03	0.025	0.015
Running parallelism of block surface C to surface A	See table 2.14		
Running parallelism of block surface D to surface B	See table 2.14		

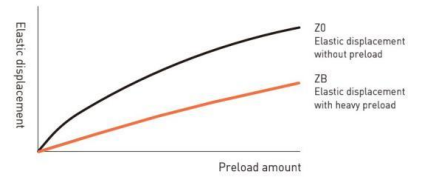
Table 2.14 Accuracy for precision parallelim

Rail length (mm)	Precision Grade (μm)				
	C	H	P	SP	UP
~ 100	12	7	3	2	2
100 ~ 200	14	9	4	2	2
200 ~ 300	15	10	5	3	2
300 ~ 500	17	12	6	3	2
500 ~ 700	20	13	7	4	2
700 ~ 900	22	15	8	5	3
900 ~ 1,100	24	16	9	6	3
1,100 ~ 1,500	26	18	11	7	4
1,500 ~ 1,900	28	20	13	8	4
1,900 ~ 2,500	31	22	15	10	5
2,500 ~ 3,100	33	25	18	11	6
3,100 ~ 3,600	36	27	20	14	7
3,600 ~ 4,000	37	28	21	15	7

2-1-6 Preload of Linear Guide

(1) Definition

Pre-applied the load on the negative clearance between the balls and groove, namely oversize the balls, it can improve the rigidity of linear guides and eliminate the negative clearance, as right picture to show this definition, except the light preloading is recommended for small model size to avoid the over preload affecting the life of the linear guide.



(2) Level of Preload

PHG linear guide has three levels for preload, the customer can decide the suitable preload for application. Note : the “C” in the preload column refers to dynamic load rating.

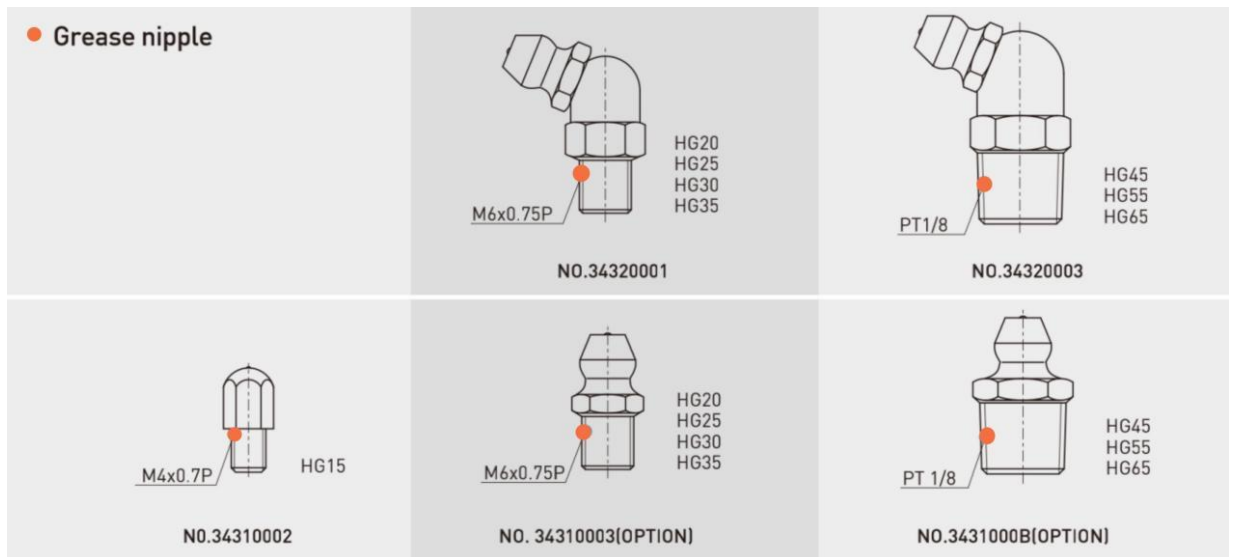
Table 2.15

Level	Code	Preload	Condition	Application
Light Preload	Z0	0~0.02C	Certain load directions, low impact, low precision required	Transportation devices; auto-packing machine; X-Y axis for general industrial machines; welding machines; fusing machines; too exchange devices
Medium Preload	ZA	0.05C-0.07C	Light load, high precision	Z axis of industrial machine; electric discharge processing machine; NC lathe; precision XY table; measuring equipment
Heavy Preload	ZB	0.10C-0.12C	High rigidity requirements, vibration and impact condition	Machine processing center; grinding machine; NC lathe; horizontal and vertical milling machine; Z axis of machine; heavy cutting machine
Level	Interchangeable linear guide			Non-interchangeable linear guide
Preload	Z0, ZA			Z0, ZA, ZB

2-1-7 Lubrication of Linear Guide

1) Grease

Grease nipple type



Mounting location

Usually the grease nipple fitted at the front or ends of the block to be injected the oil by manual, PHG series also have mounting location on the side of the end cap (generally straight grease nipple) to be injected the oil from side, so customers can contact us for requirements of grease nipples installation location. For self-lubrication type, the customers can select the pipe connector according to the connecting pipe type.

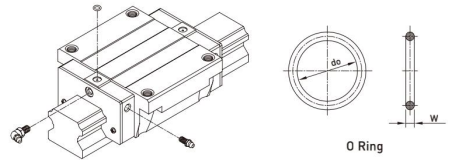


Table 2.16 The lubricant amount for single block

Size	Heavy Load (cm ³)	Super Heavy Load (cm ³)	Size	Heavy Load (cm ³)	Super Heavy Load (cm ³)
PHG 15	1	-	PHG 35	10	12
PHG 20	2	3	PHG 45	17	21
PHG 25	5	6	PHG 55	26	33
PHG 30	7	8	PHG 65	50	61

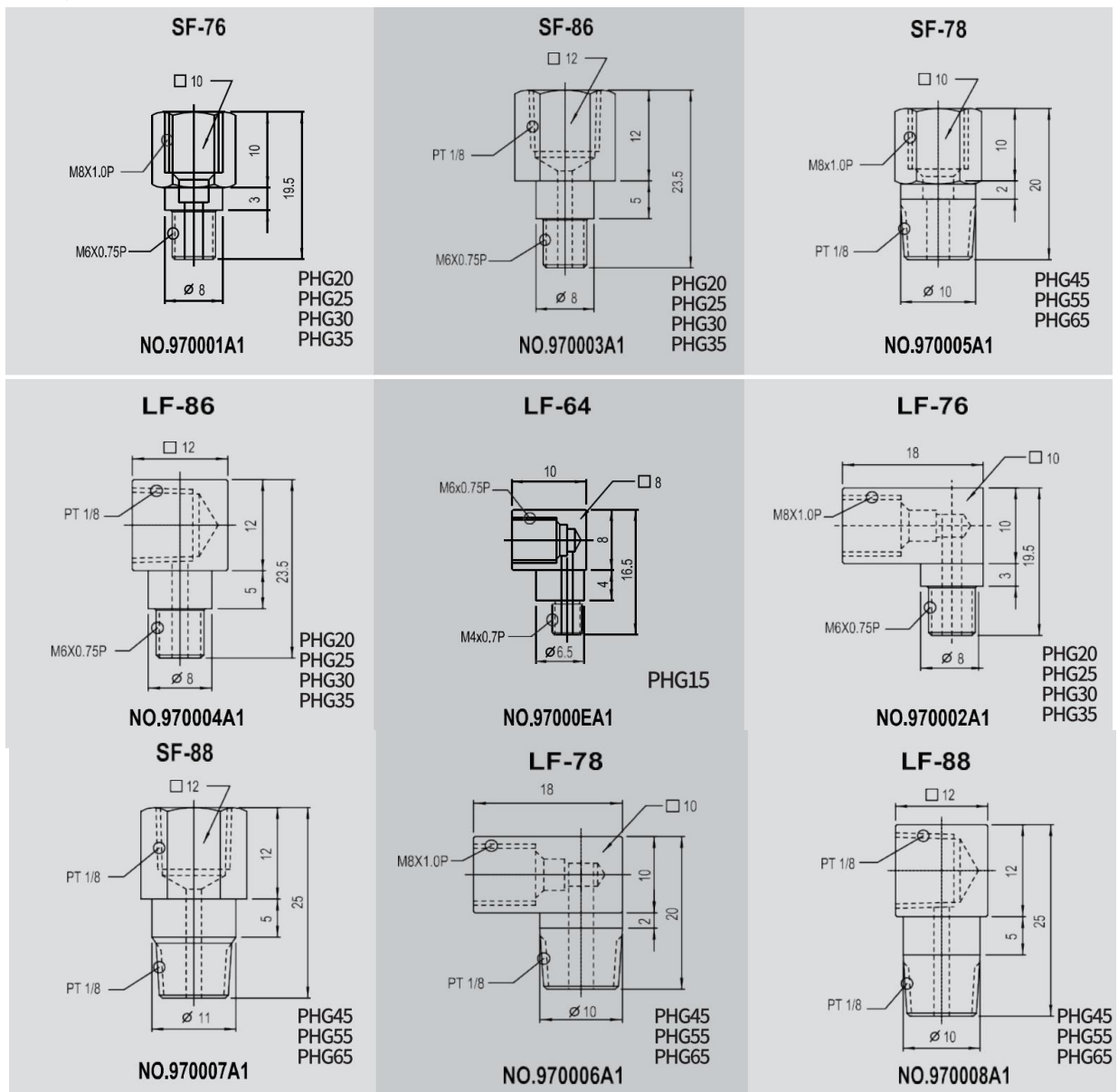
Frequency of lubrication

Check the grease every 100km, or every 3-6 month

(2) Lubricating Oil

The recommended viscosity of oil is about 30 ~ 150 cSt, the customers need to inform us if need the lubricant oil before delivery.

oil tubing joint mode



Oil refilling rate

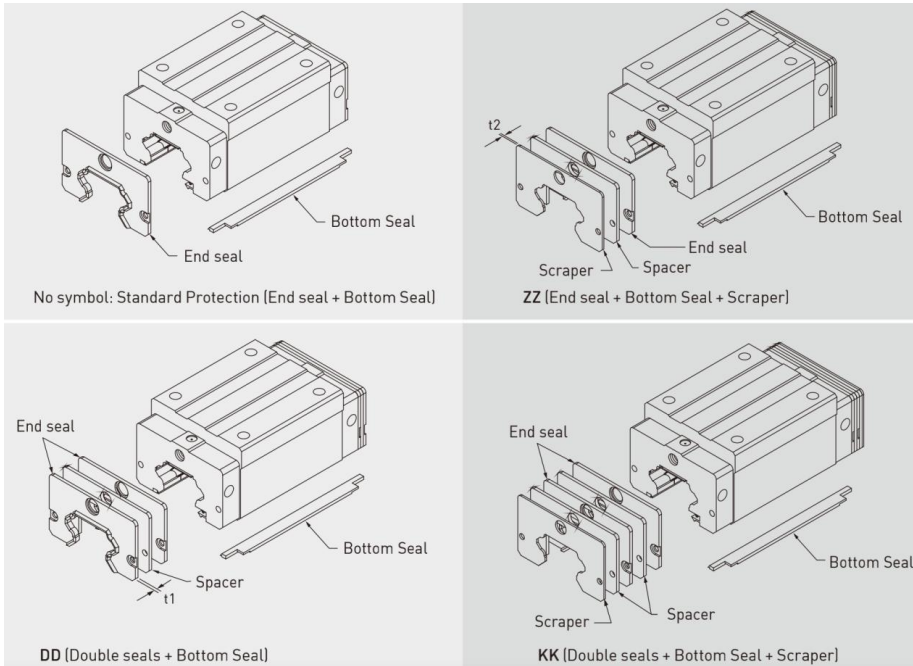
Table 2.17

Size	Refilling rate (cm ³ /hr)	Size	Refilling rate (cm ³ /hr)
PHG 15	0.2	PHG 35	0.3
PHG 20	0.2	PHG 45	0.4
PHG 25	0.3	PHG 55	0.5
PHG 30	0.3	PHG 65	0.6

2-1-8 Dust Proof Accessories

(1) Standard Dust Proof Accessories Code

If the following dust proof accessories are needed, please add the code followed by the model number.



(2) Scraper and Bottom Seals

Prevent the processing iron scraps or dust particles from entering the linear guide block, damaging the ball surface and reducing the life of linear guide.

(3) Double seals

Enhances the wiping effect, the foreign matter is completely excluded from the linear guide blocks, even though under the tough cutting machine condition.

Table 2.18 Thickness of oil seals

Size	Thickness (t1) mm	Size	Thickness (t1) mm
PHG 15 ES	3	PHG 35 ES	3.2
PHG 20 ES	3	PHG 45 ES	4.5
PHG 25 ES	3	PHG 55 ES	5
PHG 30 ES	3.2	PHG 65 ES	5

(4) Metal Scraper

Can isolate high temperature iron chips or processing sparks, and eliminate large volume impurities.

Table 2.19 Thickness of Metal scraper

Size	Thickness (t1) mm	Size	Thickness (t1) mm
PHG 15 SC	1.5	PHG 35 SC	1.5
PHG 20 SC	1.5	PHG 45 SC	1.5
PHG 25 SC	1.5	PHG 55 SC	1.7
PHG 30 SC	1.5	PHG 65 SC	1.7

(5) Bolt caps for rail mounting holes

In order to avoid cutting powder or foreign matters getting into the linear guide block through bolt holes to affect the precision of linear guides, the clients must fix the top seals on bolts during installation. So each linear guide has top seal before delivery.

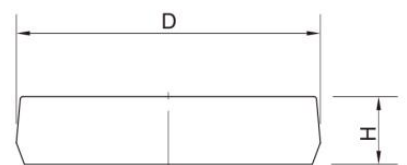


Table 2.20 Bolt caps of linear guide

Rail size	Bolt size	Diameter (D) mm	Thickness (H) mm	Rail size	Bolt size	Diameter (D) mm	Thickness (H) mm
PHGR 15	M4	7.7	1.1	PHGR 35	M8	14.3	3.3
PHGR 20	M5	9.7	2.2	PHGR 45	M12	20.3	4.6
PHGR 25	M6	11.3	2.5	PHGR 55	M14	23.5	5.5
PHGR 30	M8	14.3	3.3	PHGR 65	M16	26.6	5.5

2-1-9 Accuracy Tolerance of Mounting Surface

1) PHG linear guide are circular-arc groove contact design, its self-aligning feature can keep the smooth linear motion movements through absorbing the errors of mounting surface. Following table is accuracy tolerance of mounting surface :

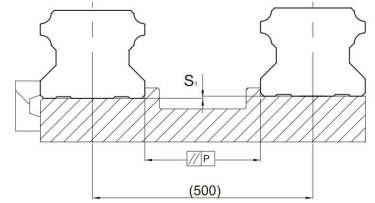


Table 2.21 Max Parallelism Tolerance (P)

Size	Preload		
	Z0	ZA	ZB
PHG15	25	18	-
PHG20	25	20	18
PHG25	30	22	20
PHG30	40	30	27
PHG35	50	35	30
PHG45	60	40	35
PHG55	70	50	45
PHG65	80	60	55

The Accuracy Tolerance of Reference Surface Height

Table 2.22 Max. Tolerance of Reference surface Height (S1)

Size	Preload		
	Z0	ZA	ZB
PHG15	130	85	-
PHG20	130	85	50
PHG25	130	85	70
PHG30	170	110	90
PHG35	210	150	120
PHG45	250	170	140
PHG55	300	210	170
PHG65	350	250	200

2-1-10 Cautions for Installation

(1) shoulder height and fillet

When installing linear guide, must check whether the condition of mounting surface shoulder is appropriate, if fillet over size, will cause the poor precision of linear guide, and higher height will affect the block. As long as the recommended shoulder heights and fillet are followed, installation inaccuracies should be eliminated.

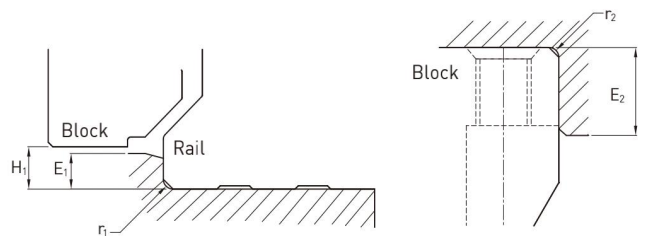


Table 2.23 shoulder and fillet

Size	Max Fillet Radius of Rail r_1 (mm)	Max. Fillet Radius of Block r_2 (mm)	Shoulder Height of Rail E_1 (mm)	Shoulder Height of Block E_2 (mm)	Clearance Height of Block H_1 (mm)
PHG15	0.5	0.5	3	4	4.3
PHG20	0.5	0.5	3.5	5	4.6
PHG25	1.0	1	5	5	5.5
PHG30	1.0	1	5	5	6
PHG35	1.0	1	6	6	7.5
PHG45	1.0	1	8	8	9.5
PHG55	1.5	1.5	10	10	13
PHG65	1.5	1.5	10	10	13

(2) Tightening Torque of Bolts for Installation

Improper tightening of bolts will seriously influence the accuracy of linear guide, so the following tightening torques for different size of bolts are recommended.

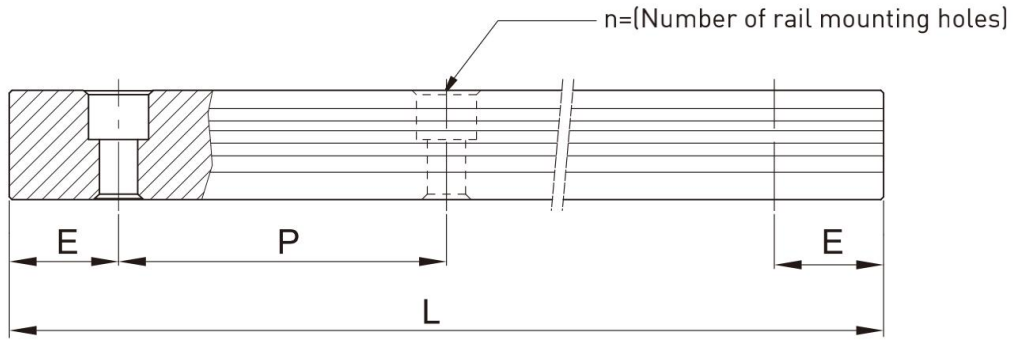
Table 2.24 mounting torque

Size	Bolt Size	Torque N-cm(kgf-cm)	Size	Bolt Size	Torque N-cm(kgf-cm)
PHG15	M4*0.7P*16L	392 (40)	PHG35	M8*1.25P*25L	3,041 (310)
PHG20	M5*0.8P*16L	883 (90)	PHG45	M12*1.75P*35L	11,772 (1,200)
PHG25	M6*1P*20L	1373 (140)	PHG55	M14*2P*45L	15,696 (1,600)
PHG30	M8*1.25P*25L	3041 (310)	PHG65	M16*2P*50L	19,620 (2,000)

Notes : 1 kgf =9.81 N

2-1-11 Standard Length and Max. Length of Single Rail

(1) we have standard length of rail in stock for customers' requirements. If require custom length of linear guide rail, the recommended dimension should no greater than 1/2 of the pitch (P) dimension, this will prevent unstable rail end.



$$L = (n-1) * P + 2 * E$$

E Eq. 2. 1

L: Total length of rail (mm)

n: Number of mounting holes

P: Distance between any two holes (mm)

E: Distance from the center of the last hole to the edge (mm)

) Table 2 .25 Standard and Max. Length of Rail

Size	PHG15	PHG20	PHG25	PHG30
Standard length L (n)	160 (3)	220 (4)	220 (4)	280 (4)
	220 (4)	280 (5)	280 (5)	440 (6)
	280 (5)	340 (6)	340 (6)	600 (8)
	340 (6)	460 (8)	460 (8)	760 (10)
	460 (8)	640 (11)	640 (11)	1000 (13)
	640 (11)	820 (14)	820 (14)	1640 (21)
	820 (14)	1000 (17)	1000 (17)	2040 (26)
		1240 (21)	1240 (21)	2520 (32)
			1600 (27)	3000 (38)
Pitch (P)	60	60	60	80
Distance of End(Es)	20	20	20	20
Max. Standard Length	1960 (33)	4000 (67)	4000 (67)	3960 (50)
Max. Length	2000	4000	4000	4000

Size	PHG35	PHG45	PHG55	PHG65
Standard length L (n)	280 (4)	570 (6)	780 (7)	1270 (9)
	440 (6)	885 (9)	1020 (9)	1570 (11)
	600 (8)	1200 (12)	1260 (11)	2020 (14)
	760 (10)	1620 (16)	1500 (13)	2620 (18)
	1000 (13)	2040 (20)	1980 (17)	
	1640 (21)	2460 (24)	2580 (22)	
	2040 (26)	2985 (29)	2940 (25)	
	2520 (32)			
3000 (38)				
Pitch (P)	80	105	120	150
Distance of End(Es)	20	22.5	30	35
Max. Standard Length	3960 (50)	3930 (38)	3900 (32)	3970 (26)
Max. Length	4000	4000	4000	4000

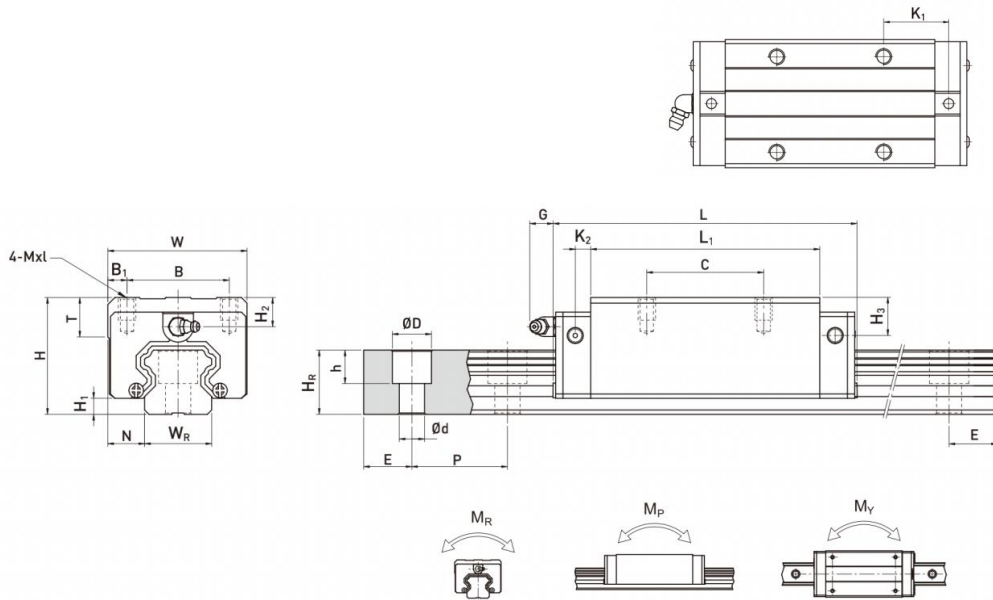
Notes: 1. General Tolerance of E value for standard rail is 0.5 ~ - 0.5 mm ; Tolerance of E value for jointed rail is 0 ~ -0.3mm.

2. Maximum standard length means the maximum rail length with standard E value on both sides.

3. If different E value is needed, please contact us.

2-1-12 Dimensions for PHG Series Linear Guide

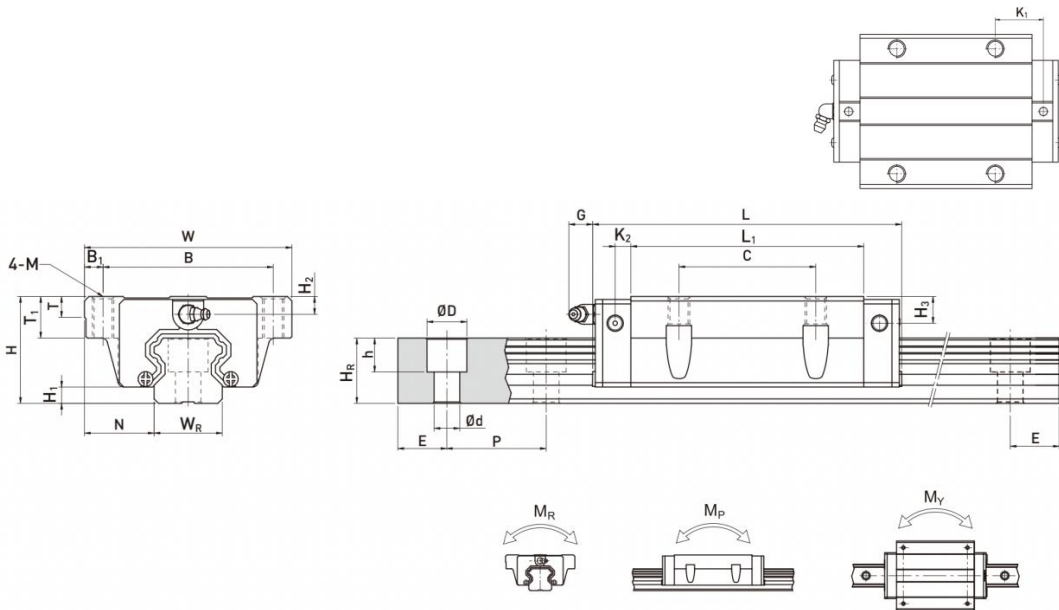
(1) PHGH-CA / PHGH-HA



Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	G	M _{x1}	T	H ₂	H ₃		
PHGH15CA	28	4.3	9.5	34	26	4	26	39.4	61.4	5.3	M4*5	6	8.5	9.5		
PHGH20CA	30	4.6	12	44	32	6	36	50.5	77.5	12	M5*6	8	6	7		
PHGH20HA							50	65.2	92.2							
PHGH25CA	40	5.5	12.5	48	35	6.5	35	58	84	12	M6*8	8	10	13		
PHGH25HA							50	78.6	104.6							
PHGH30CA	45	6	16	60	40	10	40	70	97.4	12	M8*10	8.5	9.5	13.8		
PHGH30HA							60	93	120.4							
PHGH35CA	55	7.5	18	70	50	10	50	80	112.4	12	M8*12	10.2	16	19.6		
PHGH35HA							72	105.8	138.2							
PHGH45CA	70	9.5	20.5	86	60	13	60	97	139.4	12.9	M10*17	16	18.5	30.5		
PHGH45HA							80	128.8	171.2							
PHGH55CA	80	13	23.5	100	75	12.5	75	117.7	166.7	12.9	M12*18	17.5	22	29		
PHGH55HA							95	155.8	204.8							
PHGH65CA	90	15	31.5	126	76	25	70	144.2	200.2	12.9	M16*20	25	15	15		
PHGH65HA							120	203.6	259.6							

Model	Dimensions of Rail (mm)							Mounting bolt size for rail	Basic dynamic load rating	Basic static load rating	Allowable static rated moment			weight	
	WR	HR	D	h	d	P	E				mm	C (kN)	C ₀ (kN)	MRkN-m	MPkN-m
PHGH15CA	15	15	7.5	5.3	4.5	60	20	M4*16	11.38	16.97	0.12	0.10	0.10	0.18	1.45
PHGH20CA	20	17.5	9.5	8.5	6	60	20	M5*16	17.75	27.76	0.27	0.2	0.2	0.3	2.21
PHGH20HA									21.18	35.9	0.35	0.35	0.35	0.39	
PHGH25CA	23	22	11	9	7	60	20	M6*20	26.48	36.49	0.42	0.33	0.33	0.51	3.21
PHGH25HA									32.75	49.44	0.56	0.57	0.57	0.69	
PHGH30CA	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	0.88	4.47
PHGH30HA									47.27	69.16	0.88	0.92	0.92	1.16	
PHGH35CA	34	29	14	12	9	80	20	M8*25	49.52	69.16	1.16	0.81	0.81	1.45	6.3
PHGH35HA									60.21	91.63	1.54	1.4	1.4	1.92	
PHGH45CA	45	38	20	17	14	105	22.5	M12*354	77.57	102.71	1.98	1.55	1.55	2.73	10.41
PHGH45HA									94.54	136.46	2.63	2.68	2.68	3.61	
PHGH55CA	53	44	23	20	16	120	30	M14*45	114.44	148.33	3.69	2.64	2.64	4.17	15.08
PHGH55HA									139.35	196.2	4.88	4.57	4.57	5.49	
PHGH65CA	63	53	26	22	18	150	35	M16*50	163.63	215.33	6.65	4.27	4.27	7	21.18
PHGH65HA									208.36	303.13	9.38	7.38	7.38	9.82	

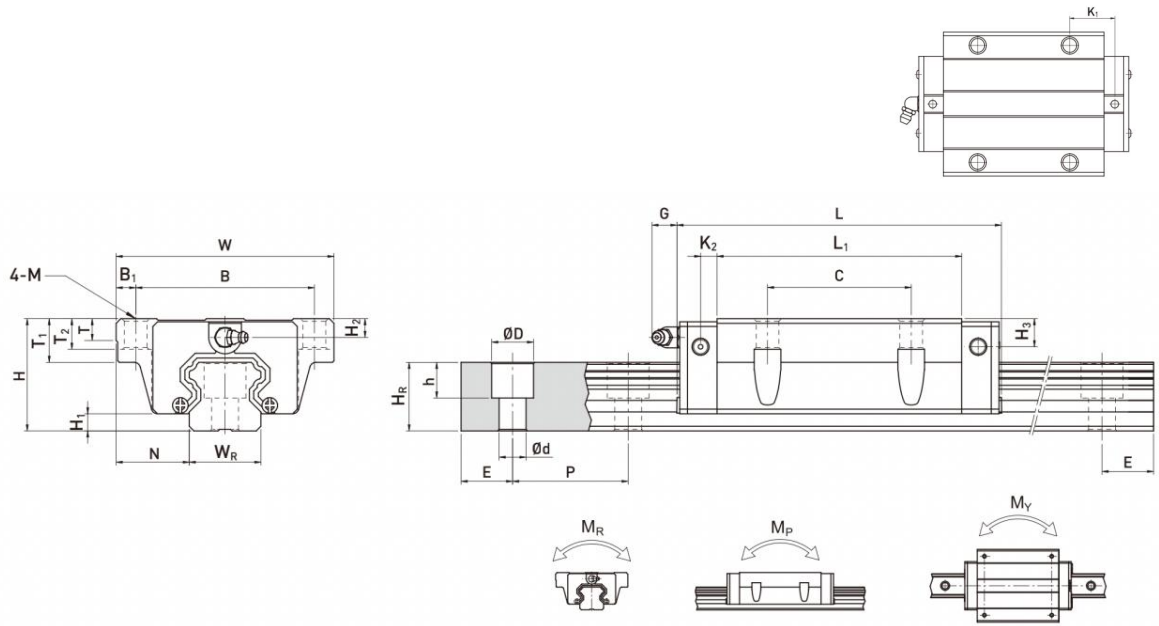
(2) PHGW - CA / PHGW - HA



Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)											
	H	H ₁	N	W	B	B ₁	C	L ₁	L	G	M	T	T ₁	H ₂	H ₃
PHGW15CA	24	4.3	16	47	38	4.5	30	39.4	61.4	5.3	M5	6	8.9	4.5	5.5
PHGW20CA	30	4.6	21.5	63	53	5	40	50.5	77.5	12	M6	8	10	6	7
PHGW20HA								65.2	92.2						
PHGW25CA	36	5.5	23.5	70	57	6.5	45	58	84	12	M8	8	14	6	9
PHGW25HA								78.6	104.6						
PHGW30CA	42	6	31	90	72	9	52	70	97.4	12	M10	8.5	16	6.5	10.8
PHGW30HA								93	120.4						
PHGW35CA	48	7.5	33	100	82	9	62	80	112.4	12	M10	10.1	18	9	12.6
PHGW35HA								105.8	138.2						
PHGW45CA	60	9.5	37.5	120	100	10	80	97	139.4	12.9	M12	15.1	22	8.5	20.5
PHGW45HA								128.8	171.2						
PHGW55CA	70	13	43.5	140	116	12	95	117.7	166.7	12.9	M14	17.5	26.5	12	19
PHGW55HA								155.8	204.8						
PHGW65CA	90	15	53.5	170	142	14	110	144.2	200.2	12.9	M16	25	37.5	15	15
PHGW65HA								203.6	259.6						

Model	Dimensions of Rail (mm)							Mounting bolt size for rail	Basic dynamic load rating	Basic static load rating	Allowable static rated moment			weight	
	WR	HR	D	h	d	P	E				mm	C (kN)	C ₀ (kN)	MRkN-m	MPkN-m
PHGW15CA	15	15	7.5	5.3	4.5	60	20	M4*16	11.38	16.97	0.12	0.10	0.10	0.17	1.45
PHGW20CA	20	17.5	9.5	8.5	6	60	20	M5*16	17.75	27.76	0.27	0.2	0.2	0.4	2.21
PHGW20HA									21.18	35.9	0.35	0.35	0.35	0.52	
PHGW25CA	23	22	11	9	7	60	20	M6*20	26.48	36.49	0.42	0.33		0.59	3.21
PHGW25HA									32.75	49.44	0.56	0.57	0.57	0.8	
PHGW30CA	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	1.09	4.47
PHGW30HA									47.27	69.16	0.88	0.92	0.92	1.44	
PHGW35CA	34	29	14	12	9	80	20	M8*25	49.52	69.16	1.16	0.81	0.81	1.56	6.3
PHGW35HA									60.21	91.63	1.54	1.4	1.4	2.06	
PHGW45CA	45	38	20	17	14	105	22.5	M12*35	77.57	102.71	1.98	1.55	1.55	2.79	10.41
PHGW45HA									94.54	136.46	2.63	2.68	2.68	3.69	
PHGW55CA	53	44	23	20	16	120	30	M14*45	114.44	148.33	2.69	2.64	2.64	4.52	15.08
PHGW55HA									139.35	196.2	4.88	4.57	4.57	5.96	
PHGW65CA	63	53	26	22	18	150	35	M16*50	163.63	215.33	6.65	4.27	4.27	9.17	21.18
PHGW65HA									208.36	303.13	9.38	7.38	7.38	12.89	

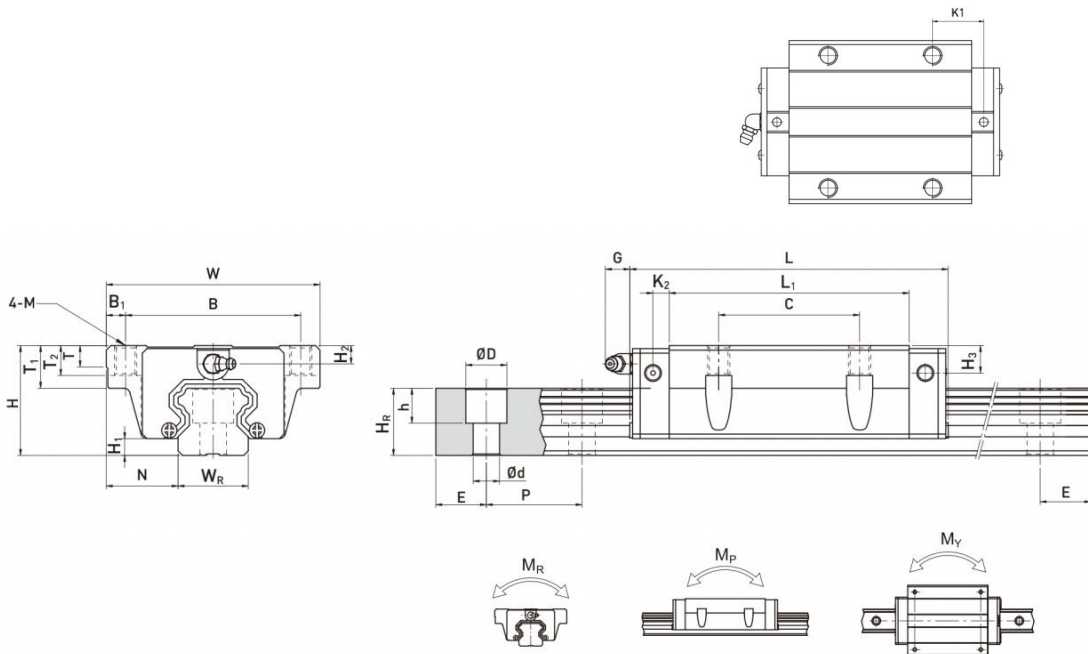
(3) PHGW - CB / PHGW -HB



Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	G	M	T	T ₁	T ₂	H ₂	H ₃
PHGW15CB	24	4.3	16	47	38	4.5	30	39.4	61.4	5.3	Φ4.5	6	8.9	69.5	4.5	5.5
PHGW20CB	30	4.6	21.5	63	53	5	40	50.5	77.5	12	Φ6	8	10	9.5	6	7
PHGW20HB								65.2	92.2							
PHGW25CB	36	5.5	23.5	70	57	6.5	45	58	84	12	Φ7	8	14	10	6	9
PHGW25HB								78.6	104.6							
PHGW30CB	42	6	31	90	72	9	52	70	97.4	12	Φ9	8.5	16	10	6.5	10.8
PHGW30HB								93	120.4							
PHGW35CB	48	7.5	33	100	82	9	62	80	112.4	12	Φ9	10.1	18	13	9	12.6
PHGW35HB								105.8	138.2							
PHGW45CB	60	9.5	37.5	120	100	10	80	97	139.4	12.9	Φ11	15.1	22	15	8.5	20.5
PHGW45HB								128.8	171.2							
PHGW55CB	70	13	43.5	140	116	12	95	117.7	166.7	12.9	Φ14	17.5	26.5	26.5	12	19
PHGW55HB								155.8	204.8							
PHGW65CB	90	15	53.5	170	142	14	110	144.2	200.2	12.9	Φ16	25	37.5	23	15	15
PHGW65HB								203.6	259.6							

Model	Dimensions of Rail (mm)							Mounting bolt size for rail mm	Basic dynamic load rating C (kN)	Basic static load rating C ₀ (kN)	Allowable static rated moment			weight	
	WR	HR	D	h	d	P	E				MRkN-m	MPkN-m	MYkN-m	Block kg	Rail Kg/m
PHGW15CB	15	15	7.5	5.3	4.5	60	20	M4*16	11.38	16.97	0.12	0.10	0.10	0.17	1.45
PHGW20CB	20	17.5	9.5	8.5	6	60	20	M5*16	17.75	27.76	0.27	0.2	0.2	0.4	2.21
PHGW20HB									21.18	35.9	0.35	0.35	0.35	0.52	
PHGW25CB	23	22	11	9	7	60	20	M6*20	26.48	36.49	0.42	0.33	0.33	0.59	3.21
PHGW25HB									32.75	49.44	0.56	0.57	0.57	0.8	
PHGW30CB	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	1.09	4.47
PHGW30HB									47.27	69.16	0.88	0.92	0.92	1.44	
PHGW35CB	34	29	14	12	9	80	20	M8*25	49.52	69.16	1.16	0.81	0.81	1.56	6.3
PHGW35HB									60.21	91.63	1.54	1.4	1.4	2.06	
PHGW45CB	45	38	20	17	14	105	22.5	M12*35	77.57	102.71	1.98	1.55	1.55	2.79	10.41
PHGW45HB									94.54	136.46	2.63	2.68	2.68	3.69	
PHGW55CB	53	44	23	20	16	120	30	M14*45	114.44	148.33	2.69	2.64	2.64	4.52	15.08
PHGW55HB									139.35	196.2	4.88	4.57	4.57	5.96	
PHGW65CB	63	53	26	22	18	150	35	M16*50	163.63	215.33	6.65	4.27	4.27	9.17	21.18
PHGW65HB									208.36	303.13	9.38	7.38	7.38	12.89	

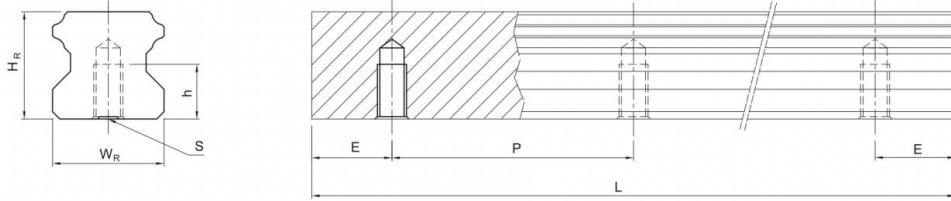
(4) PHGW - CC / PHGW -HC



Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)													
	H	H ₁	N	W	B	B ₁	C	L ₁	L	G	M	T	T ₁	T ₂	H ₂	H ₃	
PHGW15CC	24	4.3	16	47	38	4.5	30	39.4	61.4	5.3	M5	6	8.9	69.5	4.5	5.5	
PHGW20CC	30	4.6	21.5	63	53	5	40	50.5	77.5	12	M6	8	10	9.5	6	7	
PHGW20HC								65.2	92.2								
PHGW25CC	36	5.5	23.5	70	57	6.5	45	58	84	12	M8	8	14	10	6	9	
PHGW25HC								78.6	104.6								
PHGW30CC	42	6	31	90	72	9	52	70	97.4	12	M10	8.5	16	10	6.5	10.8	
PHGW30HC								93	120.4								
PHGW35CC	48	7.5	33	100	82	9	62	80	112.4	12	M10	10.1	18	13	9	12.6	
PHGW35HC								105.8	138.2								
PHGW45CC	60	9.5	37.5	120	100	10	80	97	139.4	12.9	M12	15.1	22	15	8.5	20.5	
PHGW45HC								128.8	171.2								
PHGW55CC	70	13	43.5	140	116	12	95	117.7	166.7	12.9	M14	17.5	26.5	17	12	19	
PHGW55HC								155.8	204.8								
PHGW65CC	90	15	53.5	170	142	14	110	144.2	200.2	12.9	M16	25	37.5	23	15	15	
PHGW65HC								203.6	259.6								

Model	Dimensions of Rail (mm)							Mounting bolt size for rail	Basic dynamic load rating	Basic static load rating	Allowable static rated moment			weight	
	WR	HR	D	h	d	P	E				mm	C (kN)	C ₀ (kN)	MRkN-m	MPkN-m
PHGW15CC	15	15	7.5	5.3	4.5	60	20	M4*16	11.38	16.97	0.12	0.10	0.10	0.17	1.45
PHGW20CC	20	17.5	9.5	8.5	6	60	20	M5*16	17.75	27.76	0.27	0.2	0.2	0.4	2.21
PHGW20HC									21.18	35.9	0.35	0.35	0.35	0.52	
PHGW25CC	23	22	11	9	7	60	20	M6*20	26.48	36.49	0.42	0.33	0.33	0.59	3.21
PHGW25HC									32.75	49.44	0.56	0.57	0.57	0.8	
PHGW30CC	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	1.09	4.47
PHGW30HC									47.27	69.16	0.88	0.92	0.92	1.44	
PHGW35CC	34	29	14	12	9	80	20	M8*25	49.52	69.16	1.16	0.81	0.81	1.56	6.3
PHGW35HC									60.21	91.63	1.54	1.4	1.4	2.06	
PHGW45CC	45	38	20	17	14	105	22.5	M12*35	77.57	102.71	1.98	1.55	1.55	2.79	10.41
PHGW45HC									94.54	136.46	2.63	2.68	2.68	3.69	
PHGW55CC	53	44	23	20	16	120	30	M14*45	114.44	148.33	2.69	2.64	2.64	4.52	15.08
PHGW55HC									139.35	196.2	4.88	4.57	4.57	5.96	
PHGW65CC	63	53	26	22	18	150	35	M16*50	163.63	215.33	6.65	4.27	4.27	9.17	21.18
PHGW65HC									208.36	303.13	9.38	7.38	7.38	12.89	

(5) PHGR - T (linear guide rail mounting from bottom)



Model	Dimension of linear guide rail (mm)						weight Kg/m
	W _R	H _R	S	h	P	E	
PHGR15T	15	15	M5 *0.8 P	8	60	20	1.48
PHGR20T	20	17.5	M6*1P	10	60	20	2.29
PHGR25T	23	22	M6*1P	12	60	20	3.35
PHGR30T	28	26	M8*1.25P	15	80	20	4.67
PHGR35T	34	29	M8*1.25P	17	80	20	6.51
PHGR45T	45	38	M12*1.75P	24	105	22.5	10.87
PHGR55T	53	44	M14*2P	24	120	30	15.67
PHGR65T	63	53	M20*2.5P	30	150	35	21.73

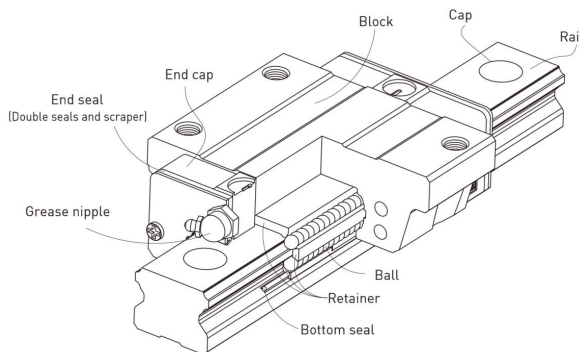
2-2 PEG series -- Low Profile Type Roller Linear Guide

2-2-1 PEG linear guide feature

PEG series adopt the design with four columns of steel balls bearing load, make the linear guide high rigidity, heavy load capacities, as well as equal load rating from all four directions, it's self-aligning function can reduce the installation errors to achieve high accuracy, because of lower height of assembly and shorter length of block, it is very suitable for high speed automation industrial machine and small equipment which require limited space.

The linear guide has retainer to prevent the balls from falling off, this is very convenient for installation and also interchangeable.

2-2-2 PEG Structure

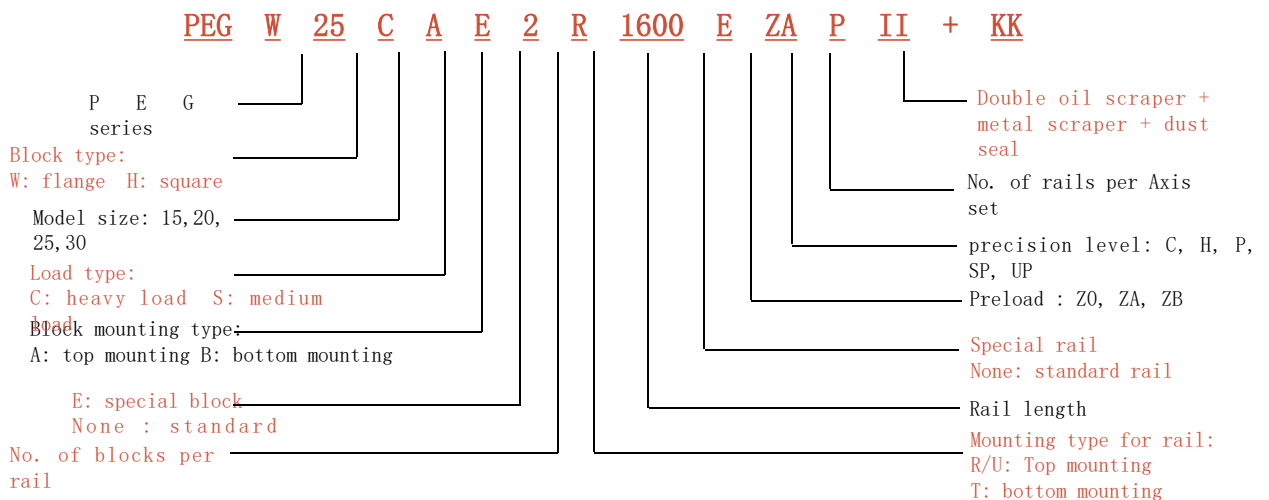


- Rolling circulation system: block, rail, end cap, steel balls, retainer
- Lubrication system: grease nipple, oil piping joint
- Dust proof system: scraper, bottom dust proof seal, bolt cover for rail, metal scraper

2-2-3 PEG Series Specification

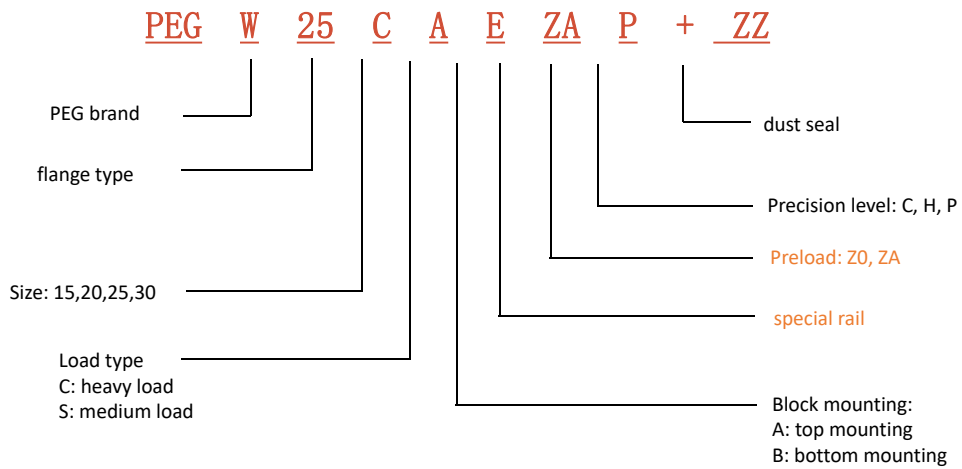
PEG series has two types: interchangeable and non-interchangeable, both of them are same with dimensions, the main difference is that for interchangeable linear guide, the linear rail and block can be used and exchanged separately.

(1) Non-interchangeable PEG series

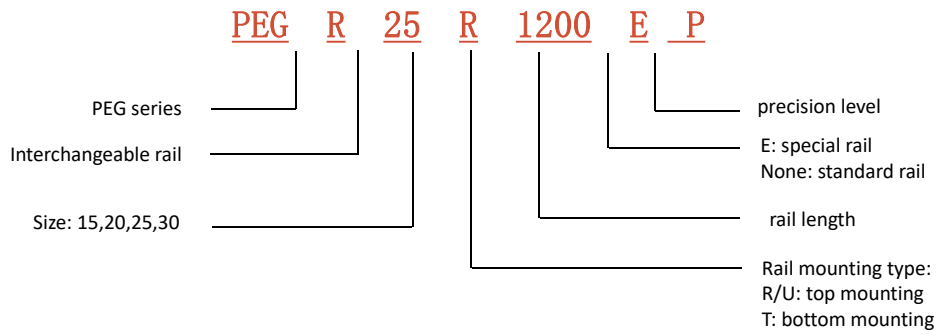


(2) Interchangeable PEG series

Interchange linear block model

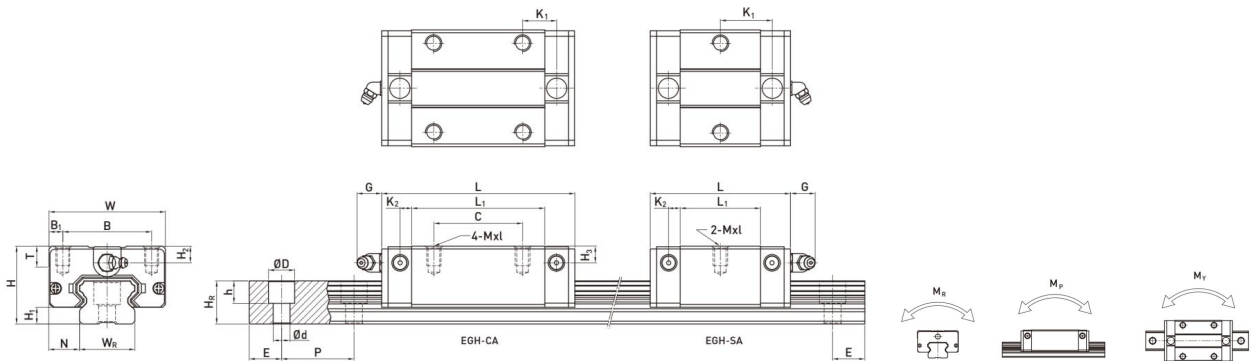


Interchangeable linear rail model



2-2-12 PEG series parameter

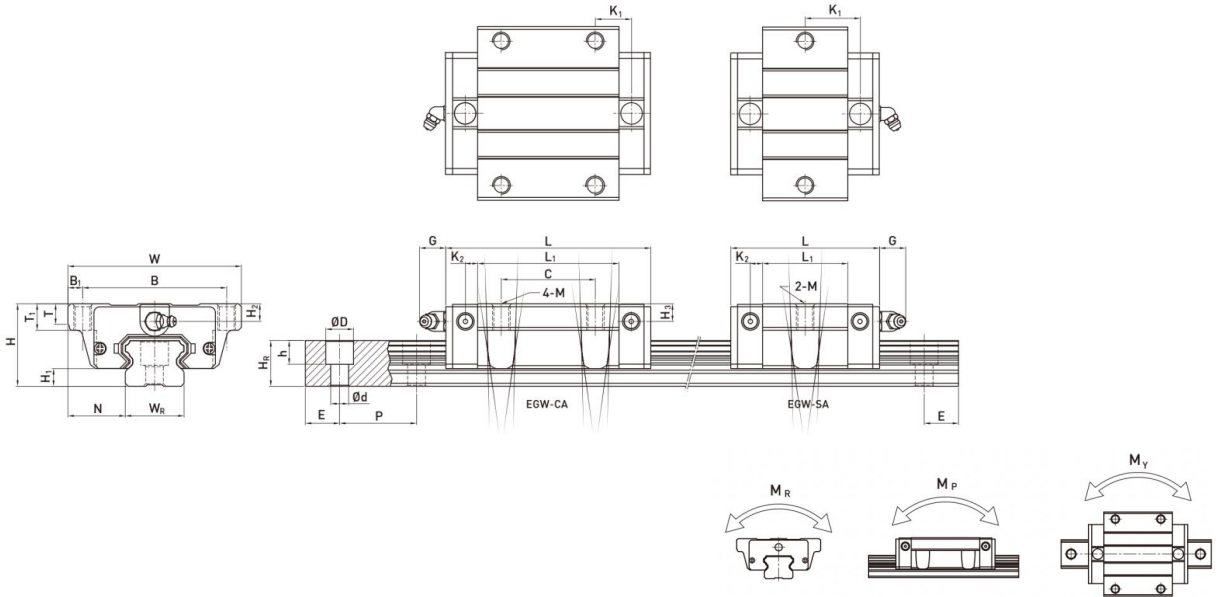
(1) PEGH -SA / PEGH -CA



Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	K ₁	G	Mx ₁	T	H ₂	H ₃	
PEGH15SA	24	4.5	9.5	34	26	4	-	23.1	40.1	14.8	5.7	M4*6	6	5.5	6	
PEGH15CA							26	39.8	56.8	10.15						
PEGH20SA	28	6	11	42	32	5	-	29	50	18.75	12	M5*7	7.5	6	6	
PEGH20CA							32	48.1	69.1	12.3						
PEGH25SA	33	7	12.5	48	35	6.5	-	35.5	59.1	21.9	12	M6*9	8	8	8	
PEGH25CA							35	59	82.6	16.15						
PEGH30SA	42	10	16	60	40	10	-	41.5	69.5	26.75	12	M8*12	9	8	9	
PEGH30CA							40	70.1	98.1	21.05						

Model	Dimensions of Rail (mm)							Mounting bolt size for rail mm	Basic dynamic load rating C (kN)	Basic static load rating C ₀ (kN)	Allowable static rated moment			weight	
	WR	HR	D	h	d	P	E				MRkN-m	MPkN-m	MYkN-m	Block kg	Rail Kg/m
PEGH15SA	15	12.5	6	4.5	3.5	60	20	M3*16	5.35	9.4	0.08	0.04	0.04	0.99	1.25
PEGH15CA									7.83	16.19	0.13	0.1	0.1	0.15	
PEGH20SA	20	15.5	9.5	8.5	6	60	20	M5*16	7.23	12.74	0.13	0.06	0.06	0.15	2.08
PEGH20CA									10.31	21.13	0.22	0.16	0.16	0.24	
PEGH25SA	23	18	11	9	7	60	20	M6*20	11.4	19.5	0.23	0.12	0.12	0.25	2.67
PEGH25CA									16.27	32.4	0.38	0.32	0.32	0.41	
PEGH30SA	28	23	11	9	7	80	20	M6*25	16.42	28.1	0.4	0.21	0.21	0.45	4.35
PEGH30CA									23.7	47.46	0.68	0.55	0.55	0.76	

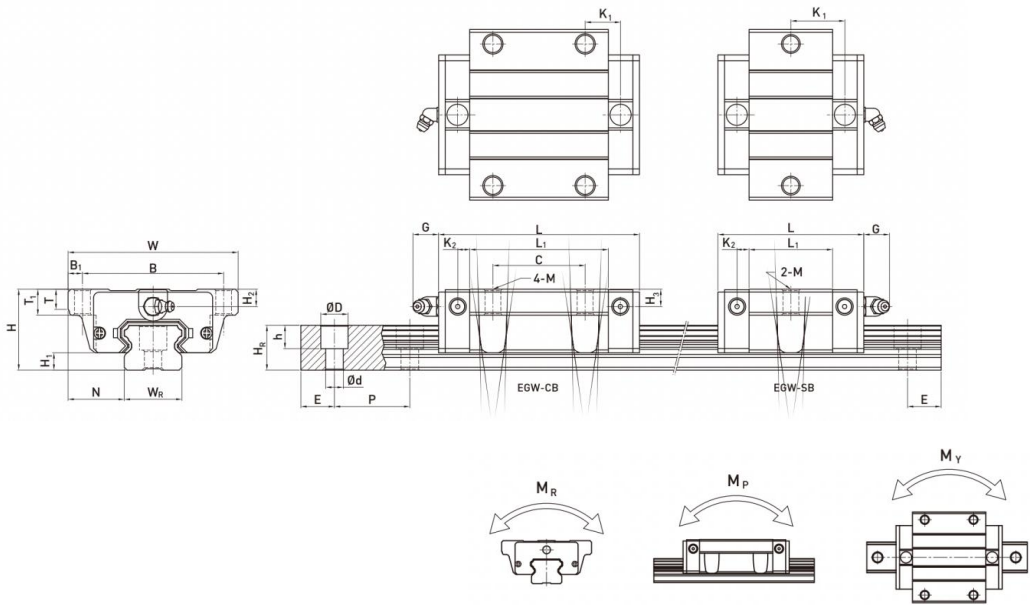
(2) PEGW -SA / PEGW -CA



Model	Dimensions of Rail Assembly (mm)			Dimensions of Block (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	K ₁	G	M	T	T ₁	H ₂	H ₃
PEGH15SA	24	4.5	18.5	52	41	5.5	-	23.1	40.1	14.8	5.7	M5	5	7	5.5	6
PEGH15CA							26	39.8	56.8	10.15						
PEGH20SA	28	6	19.5	59	49	5	-	29	50	18.75	12	M6	7	9	6	6
PEGH20CA							32	48.1	69.1	12.3						
PEGH25SA	33	7	25	73	60	6.5	-	35.5	59.1	21.9	12	M8	7.5	10	8	8
PEGH25CA							35	59	82.6	16.15						
PEGH30SA	42	10	31	90	72	9	-	41.5	69.5	26.75	12	M10	7	10	8	9
PEGH30CA							40	70.1	98.1	21.05						

Model	Dimensions of Rail (mm)							Mounting bolt size for rail mm	Basic dynamic load rating C (kN)	Basic static load rating C ₀ (kN)	Allowable static rated moment			weight	
	WR	HR	D	h	d	P	E				MRkN-m	MPkN-m	MYkN-m	Block kg	Rail Kg/m
PEGH15SA	15	12.5	6	4.5	3.5	60	20	M3*16	5.35	9.4	0.08	0.04	0.04	0.12	1.25
PEGH15CA									7.83	16.19	0.13	0.1	0.1	0.21	
PEGH20SA	20	15.5	9.5	8.5	6	60	20	M5*16	7.23	12.74	0.13	0.06	0.06	0.19	2.08
PEGH20CA									10.31	21.13	0.22	0.16	0.16	0.32	
PEGH25SA	23	18	11	9	7	60	20	M6*20	11.4	19.5	0.23	0.12	0.12	0.35	2.67
PEGH25CA									16.27	32.4	0.38	0.32	0.32	0.59	
PEGH30SA	28	23	11	9	7	80	20	M6*25	16.42	28.1	0.4	0.21	0.21	0.62	4.35
PEGH30CA									23.7	47.46	0.68	0.55	0.55	1.04	

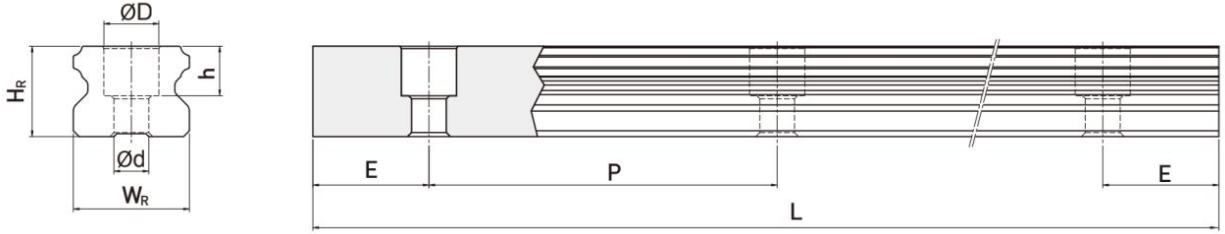
(1) PEGW -SB / PEGW -CB



Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	K ₁	G	M	T	T ₁	H ₂	H ₃
PEGH15SB	24	4.5	18.5	52	41	5.5	-	23.1	40.1	14.8	5.7	Φ4.5	5	7	5.5	6
PEGH15CB							26	39.8	56.8	10.15						
PEGH20SB	28	6	19.5	59	49	5	-	29	50	18.75	12	Φ5.5	7	9	6	6
PEGH20CB							32	48.1	69.1	12.3						
PEGH25SB	33	7	25	73	60	6.5	-	35.5	59.1	21.9	12	Φ7	7.5	10	8	8
PEGH25CB							35	59	82.6	16.15						
PEGH30SB	42	10	31	90	72	9	-	41.5	69.5	26.75	12	Φ9	7	10	8	9
PEGH30CB							40	70.1	98.1	21.05						

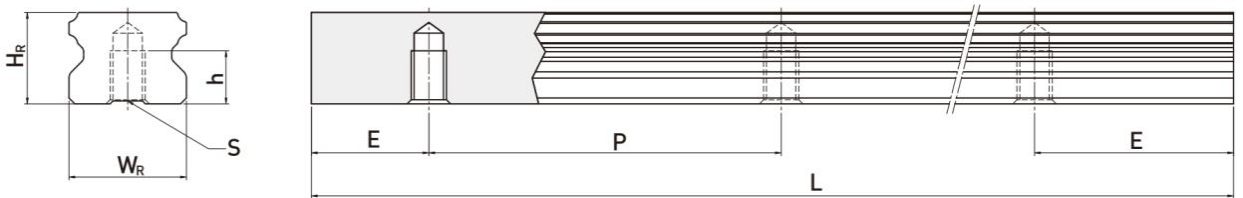
Model	Dimensions of Rail (mm)								Mounting bolt size for rail	Basic dynamic load rating	Basic static load rating	Allowable static rated moment			weight	
	WR	HR	D	h	d	P	E	mm				C (kN)	C ₀ (kN)	MRkN-m	MPkN-m	MYkN-m
PEGH15SB	15	12.5	6	4.5	3.5	60	20	M3*16	5.35	9.4	0.08	0.04	0.04	0.12	1.25	
PEGH15CB																7.83
PEGH20SB	20	15.5	9.5	8.5	6	60	20	M5*16	7.23	12.74	0.13	0.06	0.06	0.19	2.08	
PEGH20CB																10.31
PEGH25SB	23	18	11	9	7	60	20	M6*20	11.4	19.5	0.23	0.12	0.12	0.35	2.67	
PEGH25CB																16.27
PEGH30SB	28	23	11	9	7	80	20	M6*25	16.42	28.1	0.4	0.21	0.21	0.62	4.35	
PEGH30CB																23.7

(4) Dimensions for PEGR-U (large mounting hole, top mounting type)



Model	Mounting bolt for rail (mm)	size of rail (mm)							weight
		W_R	H_R	D	h	d	P	E	Kg/m
PEGR15U	M4 *16	15	12.5	7.5	5.3	4.5	60	20	1.23
PEGR30U	M8 * 25	28	13	14	12	9	80	20	4.23

(5) Dimensions for PEGR-T (large mounting hole, bottom mounting type)



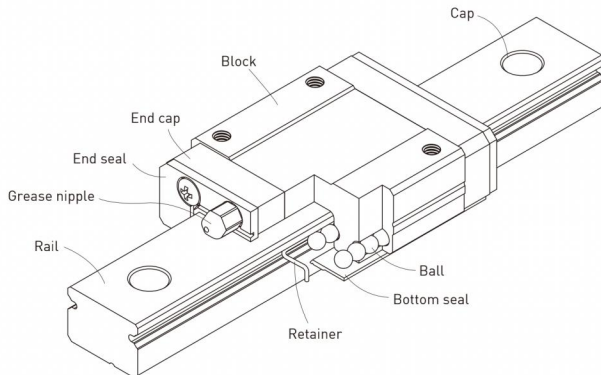
Model	Size of rail (mm)						weight
	W_R	H_R	S	h	P	E	Kg/m
PEGR15T	15	12.5	M5*0.8P	7	60	20	1.26
PEGR20T	20	15.5	M6*1P	9	60	20	2.15
PEGR25T	23	18	M6*1P	10	60	20	2.79
PEGR30T	28	23	M8*1.25P	14	80	20	4.42

2-3 PMGN/PMGW series - Miniature Linear Guide

2-3-1 PMGN series feature

1. Tiny and light, suitable for miniature equipment.
2. Adopt Gothic arch contact design can sustain equal load in all directions, high rigidity and high accuracy.
3. The linear guide ball retainers can avoid balls falling when the blocks removed from rails.
4. Interchangeable is available in certain size and precision grades

2-3-2 PMGN series structure

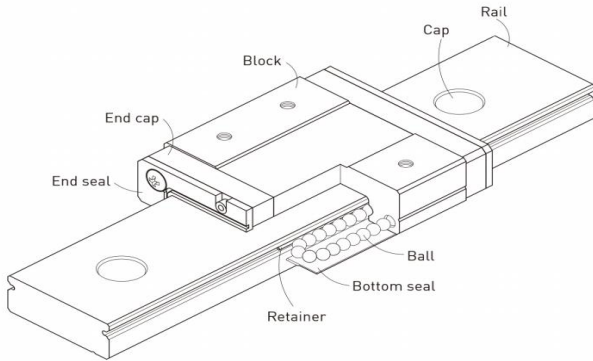


- Rolling circulation system: block, rail, end cap, steel balls, retainer
- Lubrication system: grease nipple is available for PMGN15, but for PMGN 7,9,12 are lubricated by the hole at the side of the end cap
- Dust seals system: end seal, bottom seal and cap

2-3-3 PMGW series -- miniature wide type linear guide

The enlarged width design increases the moment load capacity, can be used in single axis. Gothic arc four points contact design can bear the load in all directions and has high rigidity capability. The block has mini retainer to avoid the balls falling when it is removed from linear rails. Interchangeable types are available in certain size and precision grade.

2-3-4 PMGW series structure



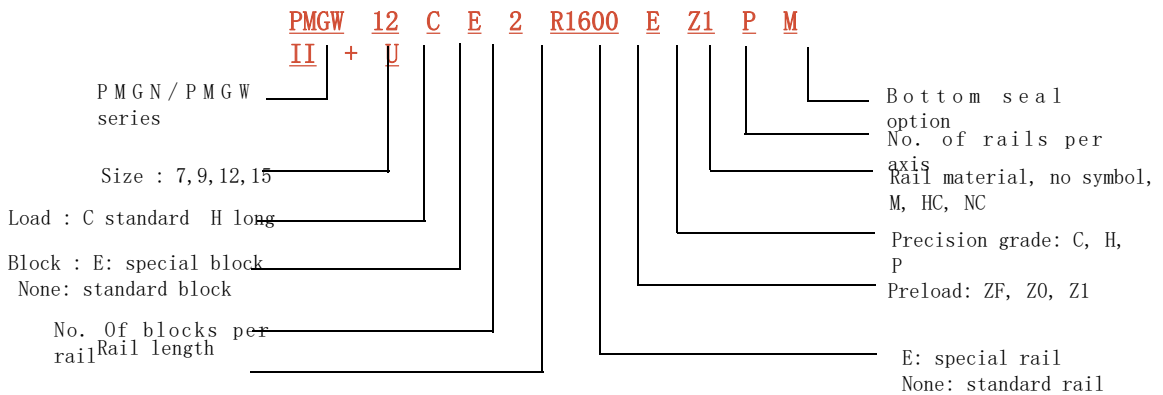
- Rolling circulation system: block, rail, end cap, steel balls, retainer
- Lubrication system: grease nipple is available for PMGN15, but for PMGN 7,9,12 are lubricated by the hole at the side of the end cap
- Dust seals system: end seal, bottom seal and cap

2-3-5 Application

PMGN/PMGW series are widely used in : semiconductor industrial, IC equipment, medical device, robotic, precision measurement equipment, automation equipment and other miniature sliding machinery.

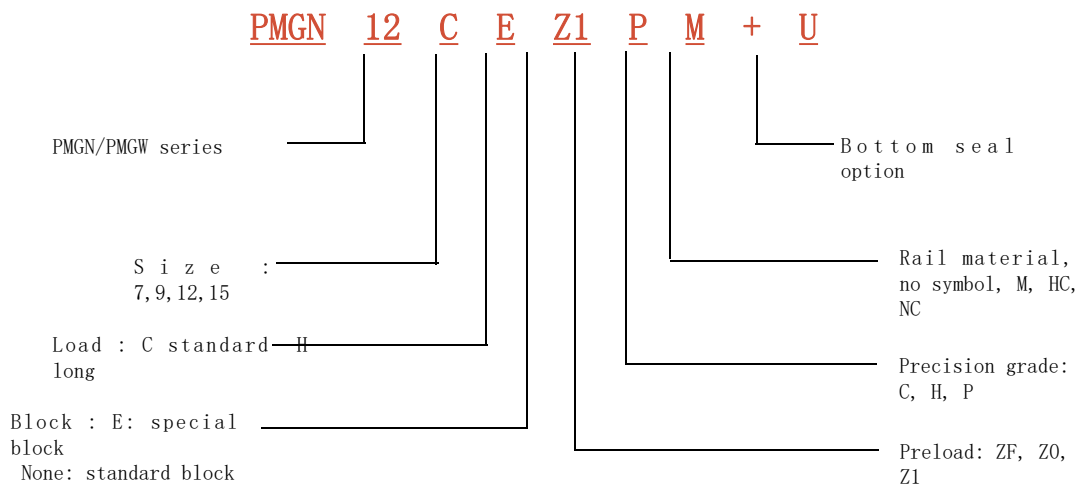
2-3-6 PMGW / PMGN series specification

(1) Non-interchangeable type

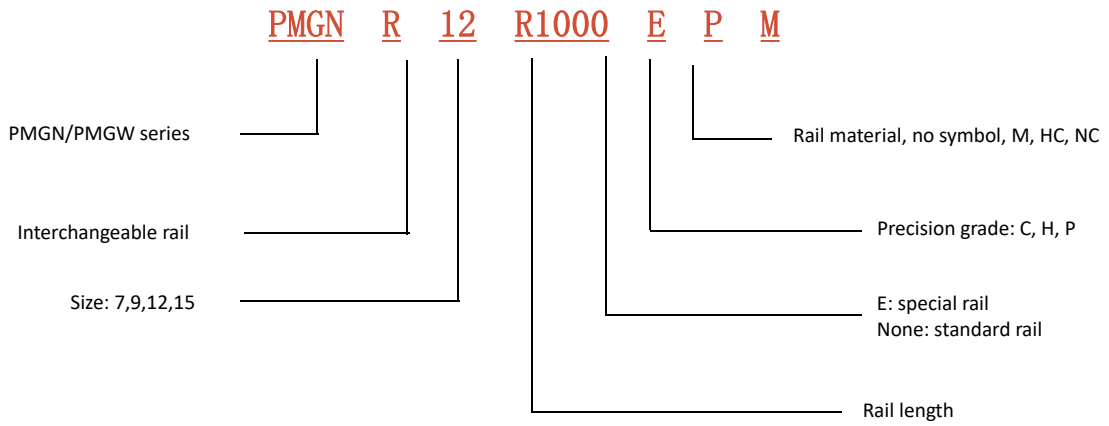


(2) Interchangeable type

Interchangeable block

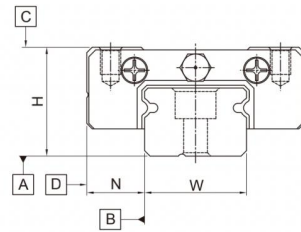


➤ Interchangeable rail



2-3-7 Precision Grade

PMGN /PMGW series precision can be classified into : normal (C), high (H) and precision (P), clients can choose the suitable accuracy based on actual requirements.



(1) Non-interchangeable

Table 2.45 accuracy table (mm)

Item	C	H	P
Dimensional tolerance of height H	± 0.04	± 0.02	± 0.01
Dimensional tolerance of width N	± 0.04	± 0.025	± 0.015
Pair variation of height H	± 0.03	± 0.015	± 0.007
Pair variation of width N	0.03	0.02	0.01
Running parallelism of block surface C to rail surface A	See table 2-47		
Running parallelism of block surface D to rail surface B	See table 2-47		

(2) Interchangeable

Table 2.46 accuracy table (mm)

Item	C	H	P	
Dimensional tolerance of height H	± 0.04	± 0.02	± 0.01	
Dimensional tolerance of width N	± 0.04	± 0.025	± 0.015	
One set	Pair variation of height H	0.03	0.015	0.007
	Pair variation of width N	0.03	0.02	0.01
Pair variation of width N (master rail)	0.07	0.04	0.02	
Running parallelism of block surface C to rail surface A	See table 2-47			
Running parallelism of block surface D to rail surface B	See table 2-47			

(3) Running parallelism accuracy

The running parallelism accuracy C to A, D to B are related to rail accuracy and rail length, please check following table:

Table 2.47 running parallelism

Rail length	Precision level			Rail length(mm)	Precision level		
	C	H	P		C	H	P
~ 50	12	6	2	315 ~ 400	18	11	6
50~80	13	7	3	400 ~ 500	19	12	6
80~125	14	8	3.5	500 ~ 630	20	13	7
125~200	15	9	4	630 ~ 800	22	14	8
200~250	16	10	5	800 ~ 1000	23	16	9
250~315	17	11	5	1000 ~ 1200	25	18	11

2-3-8 Preload

PMGN/PMGW provides three different preload levels for various of application. Notes : C refers to dynamic rating load.

Table 2.48

preload level	Code	Preload	Level
Light clearance	ZF	4-10 um	C
Very light preload	Z0	0	C ~ P
Light preload	Z1	0.02 C	C ~ P

2-3-9 Dust proof system

In general, end seals on both sides of block can prevent the dust or particles entering the block to affect the accuracy and service life of linear guides, while bottom seals which fixed on bottom of block is used to prevent dust or particle entering the block, if clients need the dust proof seals, can add +U code behind the mode type .

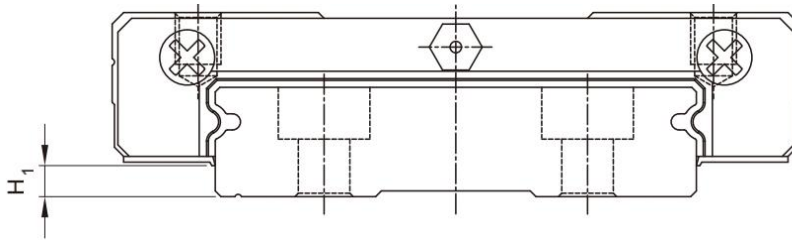


Table 2.49

Size	Dust seal	H ₁ mm
PMGN 7	-	-
PMGN 9	-	-
PMGN 12	-	2
PMGN 15	-	3
PMGW 7	-	-
PMGW 9	-	-
PMGW 12	-	2.6
PMGW 15	-	2.6

2-3-10 Cautions for Installation

Shoulders and fillets

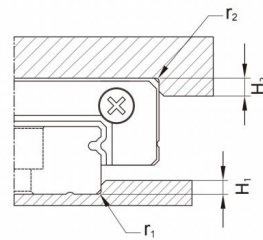


Table 2.50

Size	Max. Radius of fillets r ₁ (mm)	Max. Radius of fillets r ₂ (mm)	Shoulder height H ₁ (mm)	Shoulder height H ₂ (mm)
PMGN 7	0.2	0.2	1.2	3
PMGN 9	0.2	0.3	1.7	3
PMGN 12	0.3	0.4	1.7	4
PMGN 15	0.5	0.5	2.5	5
PMGW 7	0.2	0.2	1.7	3
PMGW 9	0.3	0.3	2.5	3
PMGW 12	0.4	0.4	3	4
PMGW 15	0.4	0.8	3	5

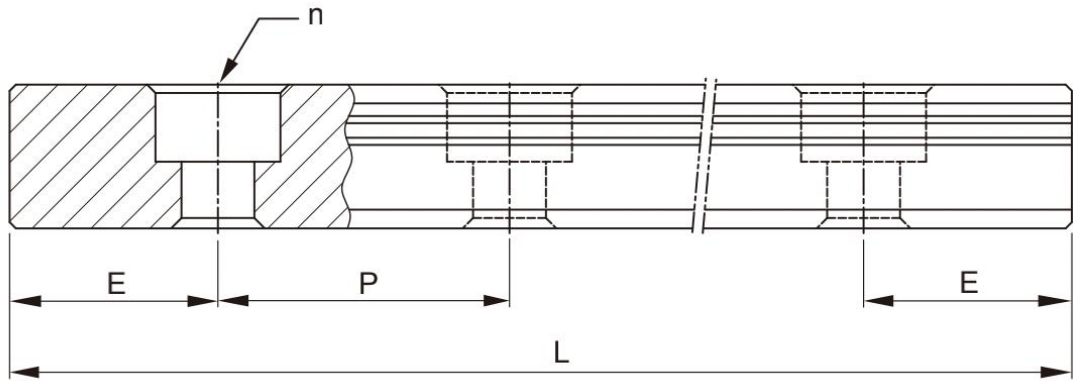
Tightening torque of bolts for installation

Improper tightening of rail mounting bolts will seriously affect the accuracy of linear guide, the following table is the recommended tightening torque for the specific bolt size.

Table 2.51

Size	Bolt size	Torque (kgf-cm)
PMGN 7	M2	5.9
PMGN 9	M3	19
PMGN 12	M3	19
PMGN 15	M3	19
PMGW 7	M3	19
PMGW 9	M3	19
PMGW 12	M4	40
PMGW 15	M4	40

2-3-11 Standard and maximum length of rail



$$L = (n-1) * P + 2 * E \quad \text{Eq. 2.3}$$

- L: rail length (mm)
- n: No. of mounting holes
- P: Distance between any two holes (mm)
- E: Distance from the center of last hole to the edge (mm)

Table 2.52 Rail length

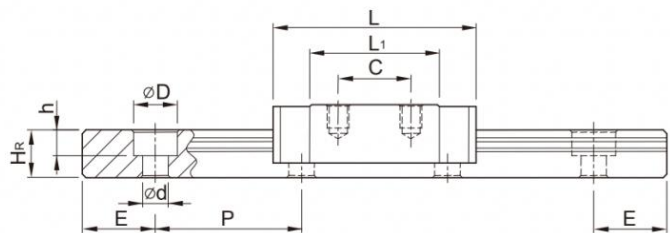
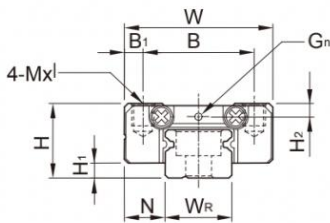
Size	PMGWR7M	PMGWR9M	PMGWR12M	PMGWR15M
Standard length L(n)	40 (3)	55 (3)	70 (3)	70 (2)
	55 (4)	75 (4)	95 (4)	110 (3)
	70 (5)	95 (5)	120 (5)	150 (4)
	85 (6)	115 (6)	145 (6)	190 (5)
	100 (7)	135 (7)	170 (7)	230 (6)
	130 (9)	155 (8)	195 (8)	270 (7)
		175 (9)	220 (9)	310 (8)
		195 (10)	245 (10)	350 (9)
		275 (14)	270 (11)	390 (10)
		375 (19)	320 (13)	430 (11)
			370 (15)	470 (12)
			470 (19)	550 (14)
			570 (23)	670 (17)
		695 (28)	870 (22)	
Pitch (P)	15	20	25	40
Distance to end(Es)	5	7.5	10	15
Max . standard length	595 (40)	995 (40)	995 (40)	990 (25)
Max. length	600	1000	1000	1000

Size	PMGWR7M	PMGWR9M	PMGWR12M	PMGWR15M
Standard length L(n)	80 (3)	80 (3)	110 (3)	110 (3)
	110 (4)	110 (4)	150 (4)	150 (4)
	140 (5)	140 (5)	190 (5)	190 (5)
	170 (6)	170 (6)	230 (6)	230 (6)
	200 (7)	200 (7)	270 (7)	270 (7)
	260 (9)	230 (8)	310 (8)	310 (8)
		260 (9)	350 (9)	350 (9)
		290 (10)	390 (10)	390 (10)
		350 (14)	430 (11)	430 (11)
		500 (19)	510 (13)	510 (13)
		710 (24)	590 (15)	590 (15)
		860 (29)	750 (19)	750 (19)
			910 (23)	910 (23)
		1070 (27)	1070 (27)	
Pitch (P)	30	30	40	40
Distance to end(Es)	10	10	15	15
Max . standard length	590 (20)	980 (33)	1150 (29)	1150 (29)
Max. length	1000	1000	1200	1200

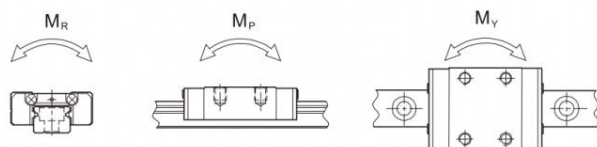
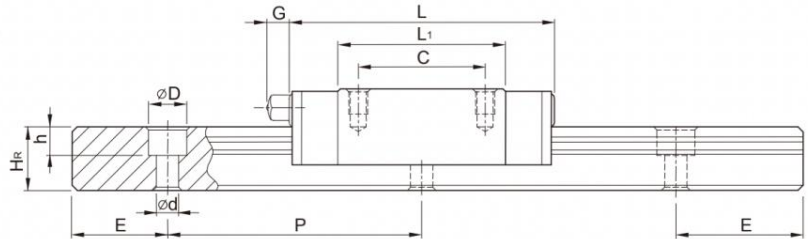
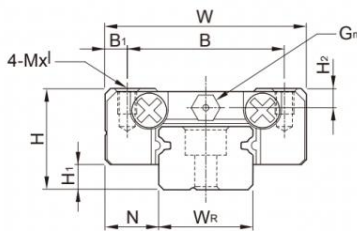
2-3-12 PMGN /PMGW Series Dimensions

(1) PMGN - C / PMGN - H

PMGN 7, PMGN 9, PMGN 12



PMGN15

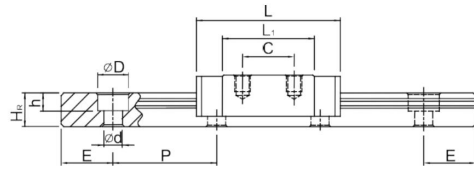
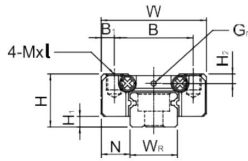


Model	Dimensions of Assembly (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	G	G _n	Mx1	H ₂
PMGN7C	8	1.5	5	17	12	2.5	8	13.5	22.5	-	Φ1.2	M2*2.5	1.5
PMGN7H							13	21.8	30.8				
PMGN9C	10	2	5.5	20	15	2.5	10	18.9	28.9	-	Φ1.2	M3*3	1.8
PMGN9H							16	29.9	39.9				
PMGN12C	13	3	7.5	27	20	3.5	15	21.7	34.7	-	Φ1.4	M3*3.5	2.5
PMGN12H							20	32.4	45.4				
PMGN15C	16	4	8.5	32	25	3.5	20	26.7	42.1	4.5	M3	M3*4	3
PMGN15H							25	43.4	58.8				

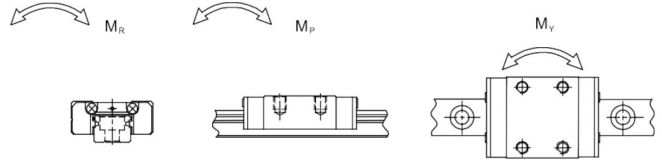
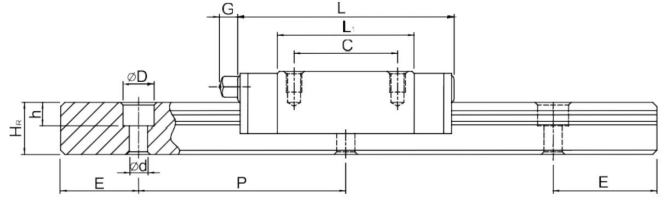
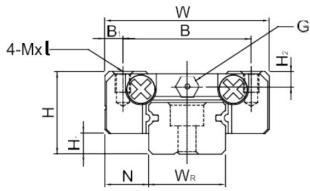
Model	Dimensions of Rail (mm)							Mounting bolt size for rail	Basic dynamic load rating	Basic static load rating	Allowable static rated moment			weight				
	WR	HR	D	h	d	P	E				mm	C (kN)	C ₀ (kN)	MRkN-m	MPkN-m	MYkN-m	Block kg	Rail Kg/m
PMGN7C	7	4.8	4.2	2.3	2.4	15	5	M2*6	0.98	1.24	4.7	2.84	2.84	0.010	0.22			
PMGN7H											1.37	1.96	7.64			4.8	4.8	0.015
PMGN9C	9	6.5	6	3.5	3.5	20	7.5	M3*8	1.86	2.55	11.76	7.35	7.35	0.016	0.38			
PMGN9H											2.55	4.02	19.6			18.62	18.62	0.026
PMGN12C	12	8	6	4.5	3.5	25	10	M3*8	2.84	3.92	25.48	13.72	13.72	0.034	0.65			
PMGN12H											3.72	5.88	38.22			36.26	36.26	0.054
PMGN15C	15	10	6	4.5	3.5	40	15	M3*10	4.61	5.59	45.08	21.56	21.56	0.059	1.06			
PMGN15H											6.37	9.11	73.5			57.82	57.82	0.092

(2) PMGW - C / PMGW - H

PMGW7, PMGW9, PMGW12



PMGN15

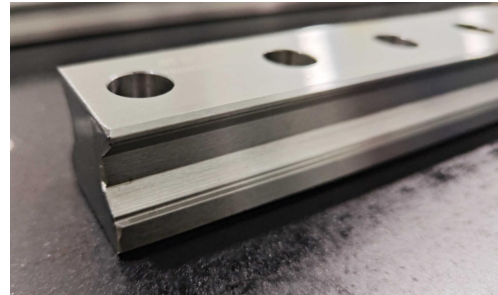
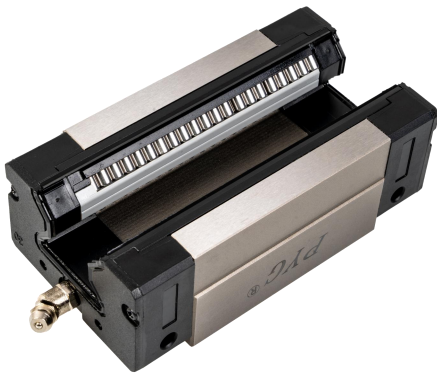
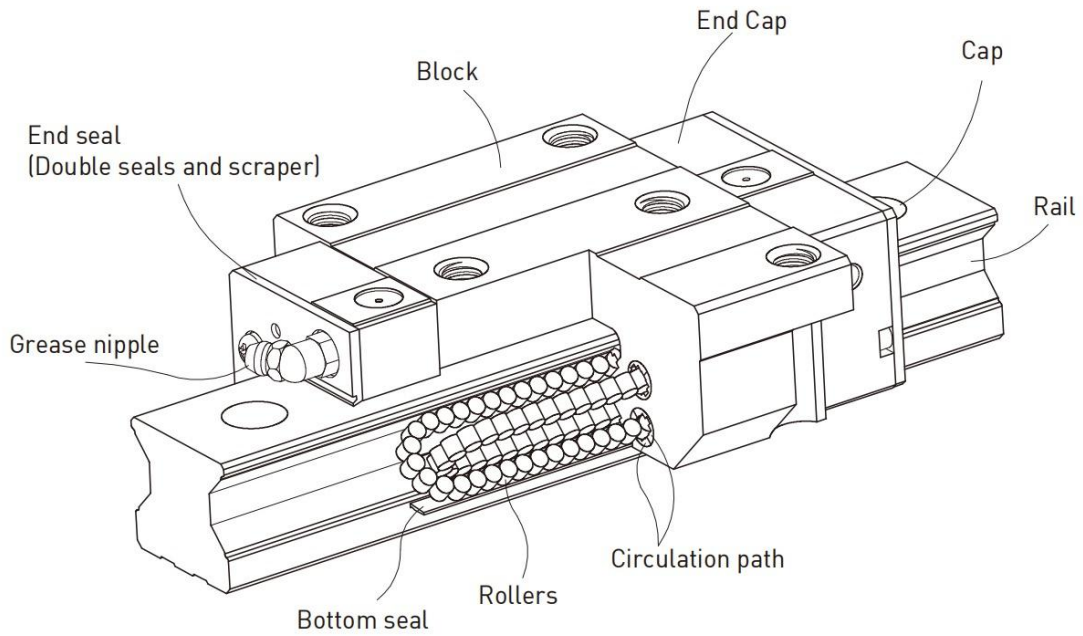


Model	Dimensions of Assembly (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	G	G _n	Mx1	H ₂
PMGW7C	9	1.9	5.5	25	19	3	10	21	31.2	-	Φ1.2	M3*3	1.85
PMGW7H							19	30.8	41				
PMGW9C	12	2.9	6	30	21	4.5	12	27.5	39.3	-	Φ1.4	M3*3	2.4
PMGW9H							23	3.5	24				
PMGW12C	14	3.4	8	40	28	6	15	31.3	46.1	-	Φ1.4	M3*3.6	2.8
PMGW12H							28	45.6	60.4				
PMGW15C	16	3.4	9	60	45	7.5	20	38	54.8	5.2	M3	M4*4.2	3.2
PMGW15H							35	57	73.8				

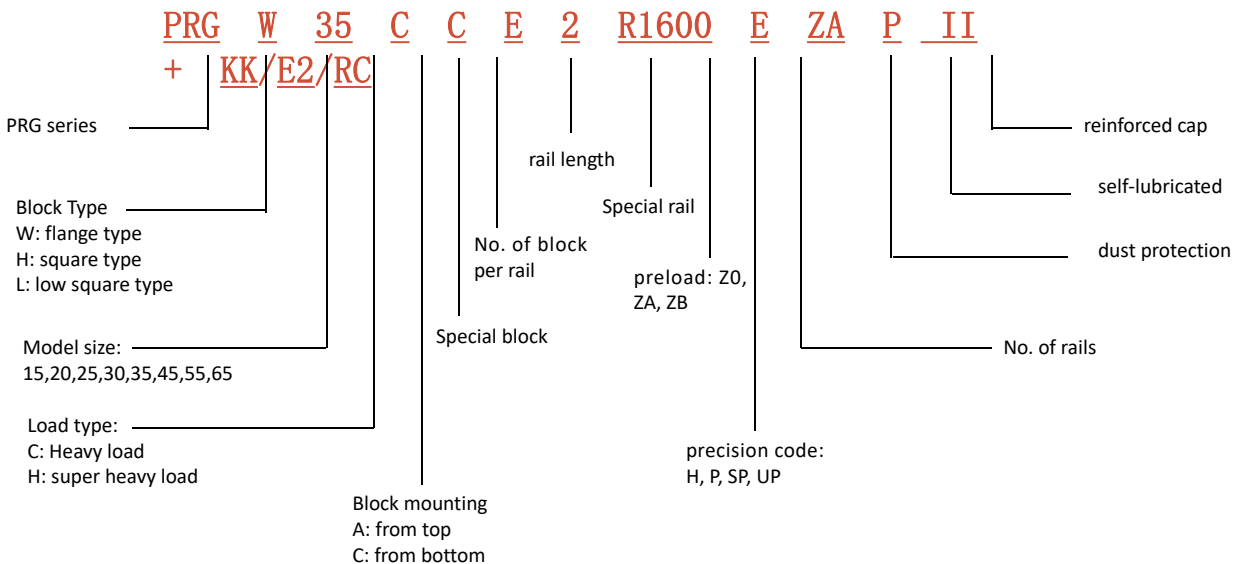
Model	Dimensions of Rail (mm)							Mounting bolt size for rail mm	Basic dynamic load rating C (kN)	Basic static load rating C ₀ (kN)	Allowable static rated moment			weight	
	W _R	H _R	D	h	d	P	E				MRkN-m	MPkN-m	MYkN-m	Block kg	Rail Kg/m
PMGW7C	14	-	6	3.2	3.5	30	10	M3*6	1.37	2.06	15.7	7.14	7.14	0.020	0.51
PMGW7H															
PMGW9C	18	-	6	4.5	3.5	30	10	M3*8	2.75	4.12	40.12	18.96	18.96	0.040	0.91
PMGW9H															
PMGW12C	24	-	8	4.5	4.5	40	15	M4*8	3.92	5.59	70.34	27.8	27.80	0.071	1.49
PMGW12H															
PMGW15C	42	23	8	4.5	4.5	40	15	M4*10	6.77	9.22	199.34	56.66	56.66	0.143	2.86
PMGW15H															

2-4 PRG series -- roller linear guide

Roller lm guideways adopts roller as rolling elements instead of steel balls, can offer super high rigidity and very high load capacities, roller bearing slide rails are designed with 45 degree angle of contact which produces small elastic deformation during super high load, bears equal load in all directions and same super high rigidity. So PRG roller guideways can reach super high precision requirements and longer service life.

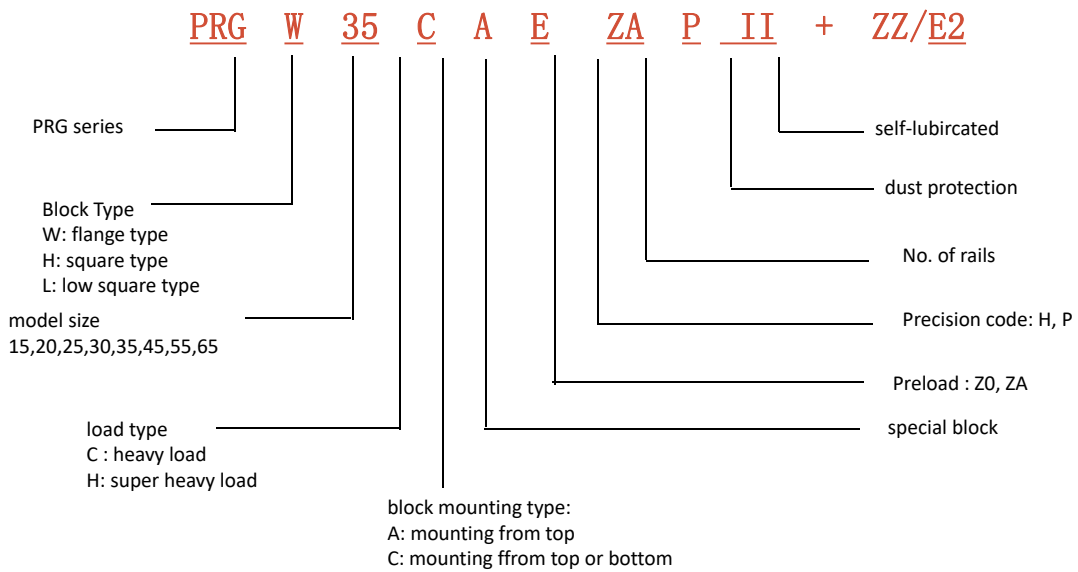


(1) Non-interchangeable Type

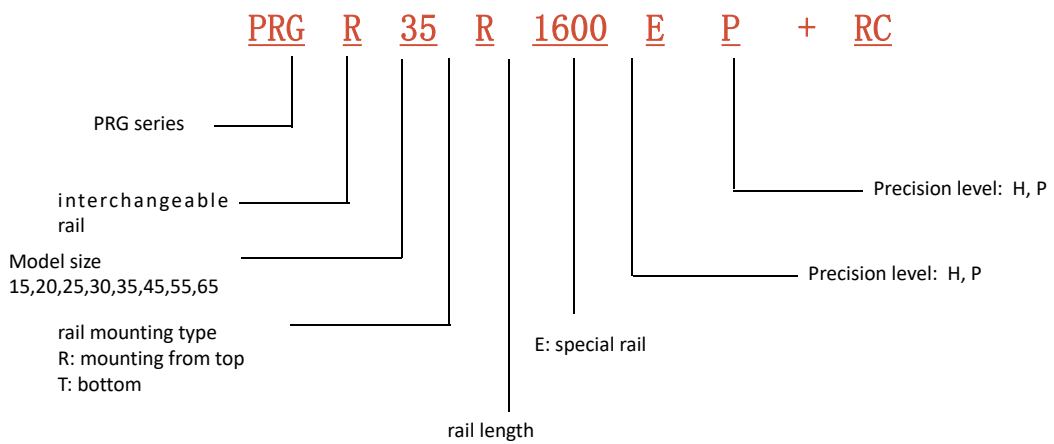


(2) Interchangeable Type

model number of PRG series block



model number of PRG series rail

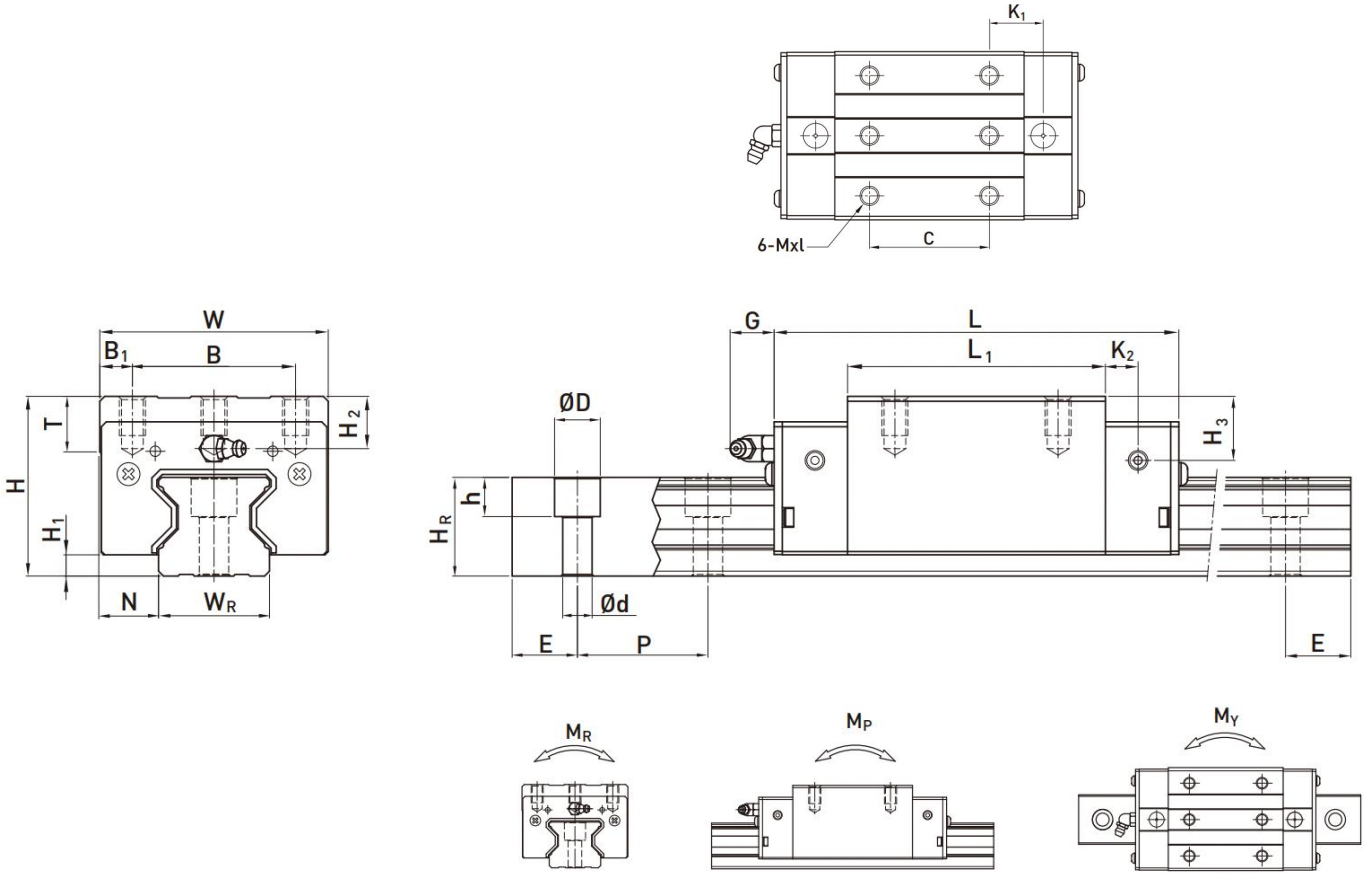


2-4-1 Preload

class	code	preload	condition
light preload	Z0	0.02C ~ 0.04C	certain load direction, low impact, low precision required
medium preload	ZA	0.07C ~ 0.09C	high rigidity required, high precision required
heavy preload	ZB	0.12C ~ 0.14C	super high rigidity required with vibration and impact

(2) Dimensions for PRG series

(1) PRGH-CA / PRGH-HA

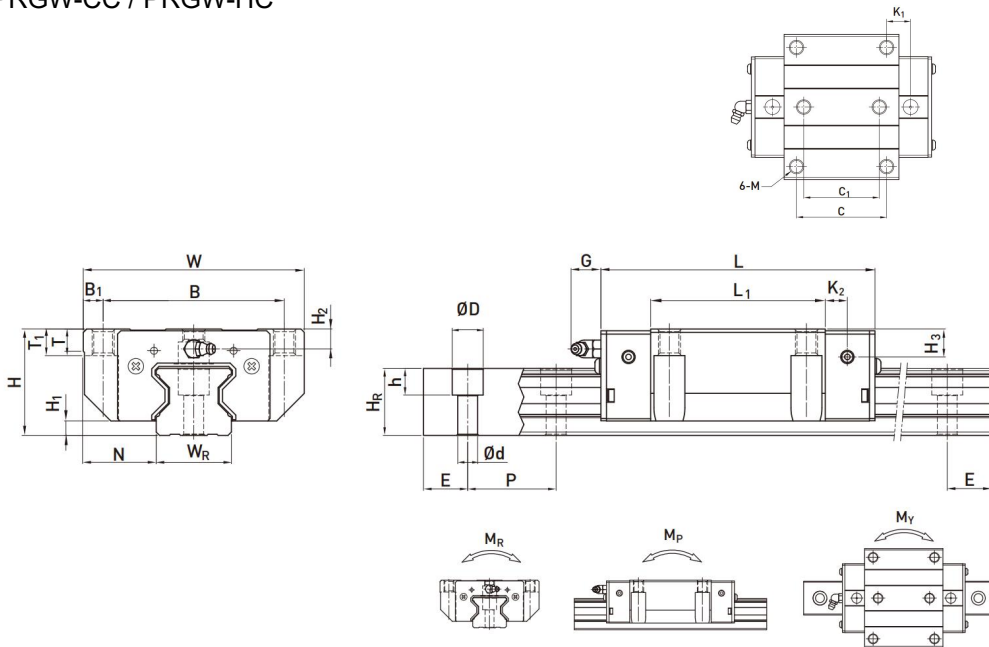


model number	Dimensions of assembly (mm)			Dimensions of Block (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	K ₁	K ₂	G	M _d	T	H ₂	H ₃
PRGH15CA	28	4	9.5	34	26	4	26	45	68	13.4	4.7	5.3	M4*8	6	7.6	10.1
PRGH20CA	34	5	12	44	32	6	36	57.5	86	15.8	6	5.3	M5*8	8	8.3	8.3
PRGH20HA							50	77.5	106	18.8						
PRGH25CA	40	5.5	12.5	48	35	6.5	35	64.5	97.9	20.75	7.25	12	M6*8	9.5	10.2	10
PRGH25HA							50	81	114.4	21.5						
PRGH30CA	45	6	16	60	40	10	40	71	109.8	23.5	8	12	M8*10	9.5	9.5	10.3
PRGH30HA							60	93	131.8	24.5						
PRGH35CA	55	6.5	18	70	50	10	50	79	124	22.5	10	12	M8*12	12	16	19.6
PRGH35HA							72	106.5	151.5	25.25						
PRGH45CA	70	8	20.5	86	60	13	60	106	153.2	31	10	12.9	M10*17	16	20	24
PRGH45HA							80	139.8	187	37.9						
PRGH55CA	80	10	23.5	100	75	12.5	75	125.5	183.7	37.75	12.5	12.9	M12*18	17.5	22	27.5
PRGH55HA							95	173.8	232	51.9						
PRGH65CA	90	12	31.5	126	76	25	70	160	232	60.8	15.8	12.9	M16*20	25	15	15
PRGH65HA							120	223	295	67.3						

model number	Dimensions of rail (mm)								mounting bolt for rail	basic dynamic load rating	basic static load rating	static rated moment			weight	
	W _r	H _r	D	h	d	P	E	mm				C(kn)	C ₀ (kn)	MR Kn-m	M _p Kn-m	M _s Kn-m
PRGH15CA	15	16.5	7.5	5.7	4.5	30	20	M4*16	11.2	23	0.309	0.17	0.17	0.20	1.8	
PRGH20CA	20	21	9.5	8.5	6	30	20	M5*20	21.2	46.6	0.645	0.43	0.43	0.40	2.76	
PRGH20HA									26.8	62.9	0.87	0.835	0.835			0.53
PRGH25CA	23	23.6	11	9	7	30	20	M6*20	27.6	57	0.756	0.602	0.602	0.61	3.08	
PRGH25HA									33.8	73.3	0.973	0.988	0.988			0.75
PRGH30CA	28	28	14	12	9	40	20	M8*25	39	82	1.443	1.03	1.03	0.9	4.41	
PRGH30HA									48	104	1.843	1.71	1.71			1.16
PRGH35CA	34	30.2	14	12	9	40	20	M8*25	57.8	105	2.15	1.42	1.42	1.57	6.06	
PRGH35HA									73	141	2.91	2.58	2.58			2.06
PRGH45CA	45	38	20	17	14	52.5	22.5	M12*35	92.5	178.7	4.5	3.03	3.03	3.18	9.97	
PRGH45HA									115	230.8	6.3	5.45	5.45			4.13
PRGH55CA	53	44	23	20	16	60	30	M14*45	130.4	251	7.99	5.38	5.38	4.89	13.98	
PRGH55HA									167.7	347	11.12	10.23	10.23			6.68
PRGH65CA	63	53	26	22	18	75	35	M16*50	212	411.5	16.18	11.57	11.57	8.89	20.22	
PRGH65HA									275.2	572.6	22.53	22.15	22.15			12.13

Note: 1kgf = 9.81N

(2) PRGW-CC / PRGW-HC

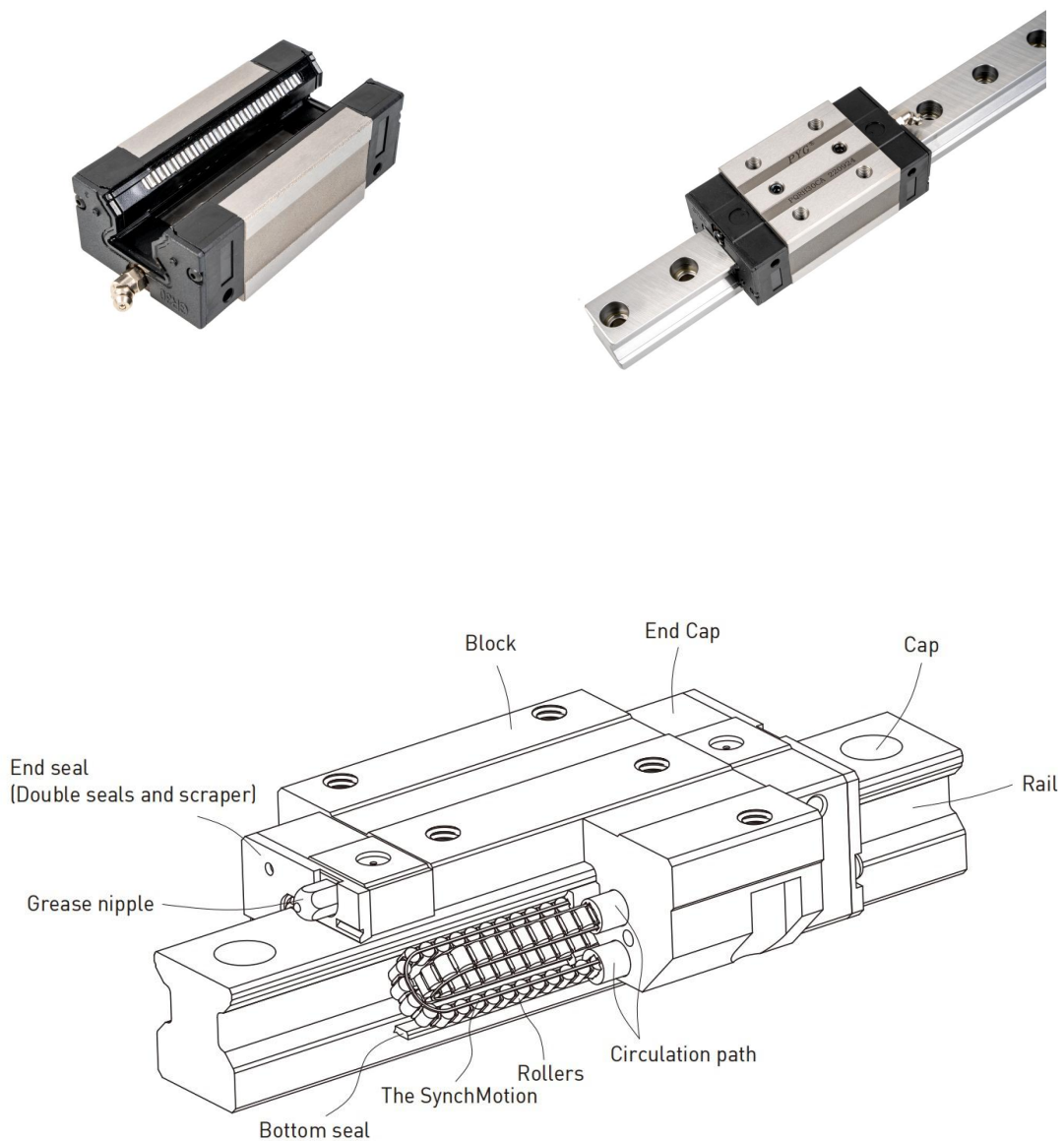


model number	Dimensions of assembly (mm)			Dimensions of Block (mm)															
	H	H ₁	N	W	B	B ₁	C	C ₁	L ₁	L	K ₁	K ₂	G	M	T	T ₁	H ₂	H ₃	
PRGW15CC	24	4	16	16	38	4.5	30	26	45	68	11.4	4.7	5.3	M5	6	6.95	3.6	6.1	
PRGW20CC	30	5	12	21.5	53	5	40	35	57.5	86	13.8	6	5.3	M6	8	10	4.3	4.3	
PRGW20HC									77.5	106	23.8								
PRGW25CC	36	5.5	12.5	23.5	57	6.5	45	40	64.5	97.9	15.75	7.25	12	M8	9.5	10	6.2	6	
PRGW25HC									81	114.4	24								
PRGW30CC	42	6	16	31	72	9	52	44	71	109.8	17.5	8	12	M10	9.5	10	6.5	7.3	
PRGW30HC									93	131.8	28.5								
PRGW35CC	48	6.5	18	33	82	9	62	52	79	124	16.5	10	12	M10	12	13	9	12.6	
PRGW35HC									106.5	151.5	30.25								
PRGW45CC	60	8	20.5	37.5	100	10	80	60	106	153.2	21	10	12.9	M12	14	15	10	14	
PRGW45HC									139.8	187	37.9								
PRGW55CC	70	10	23.5	43.5	116	12	95	70	125.5	183.7	27.75	12.5	12.9	M14	16	17	12	17.5	
PRGW55HC									173.8	232	51.9								
PRGW65CC	90	12	31.5	53.5	142	14	110	82	160	232	40.8	15.8	12.9	M16	22	23	15	15	
PRGW65HC									223	295	72.3								

Model	Dimensions of Rail (mm)							Mounting bolt size for rail mm	Basic dynamic load rating C (kN)	Basic static load rating C ₀ (kN)	Allowable static rated moment			weight	
	WR	HR	D	h	d	P	E				MRkN-m	MPkN-m	MYkN-m	Block kg	Rail Kg/m
PRGW15CC	15	16.5	7.5	5.7	4.5	30	20	M4*16	11.3	24	0.311	0.173	0.173	0.22	1.8
PRGW20CC	20	21	9.5	8.5	6	30	20	M5*20	21.3	46.7	0.647	0.46	0.46	0.47	2.76
PRGW20HC									26.9	63	0.872	0.837	0.837	0.63	
PRGW25CC	23	23.6	11	9	7	30	20	M6*20	27.7	57.1	0.758	0.605	0.605	0.72	3.08
PRGW25HC									33.9	73.4	0.975	0.991	0.991	0.91	
PRGW30CC	28	28	14	12	9	40	20	M8*25	39.1	82.1	1.445	1.06	1.06	1.16	4.41
PRGW30HC									48.1	105	1.846	1.712	1.712	1.52	
PRGW35CC	34	30.2	14	12	9	40	20	M8*25	57.9	105.2	2.17	1.44	1.44	1.75	6.06
PRGW35HC									73.1	142	2.93	2.6	2.6	2.4	
PRGW45CC	45	38	20	17	14	52.5	22.5	M12*35	92.6	178.8	4.52	3.05	3.05	3.43	9.97
PRGW45HC									116	230.9	6.33	5.47	5.47	4.57	
PRGW55CC	53	44	23	20	16	60	30	M14*45	130.5	252	8.01	5.4	5.4	5.43	13.98
PRGW55HC									167.8	348	11.15	10.25	10.25	7.61	
PRGW65CC	63	53	26	22	18	75	35	M16*50	213	411.6	16.2	11.59	11.59	11.63	20.22
PRGW65HC									275.3	572.7	22.55	22.17	22.17	16.58	

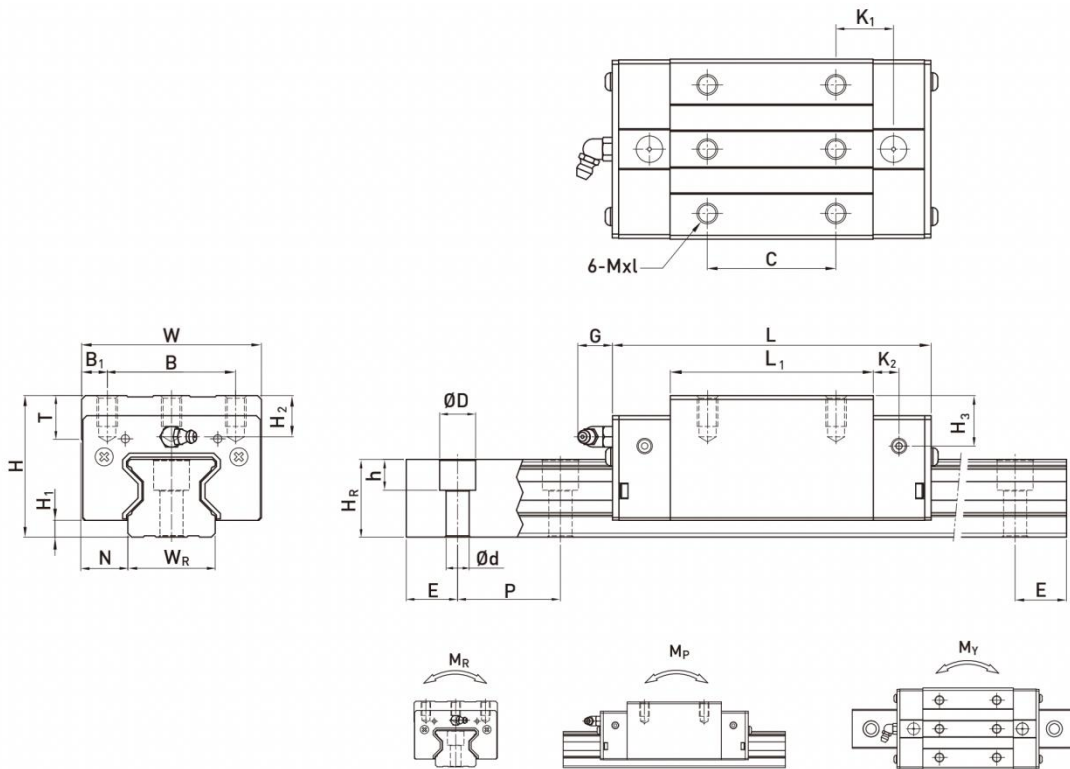
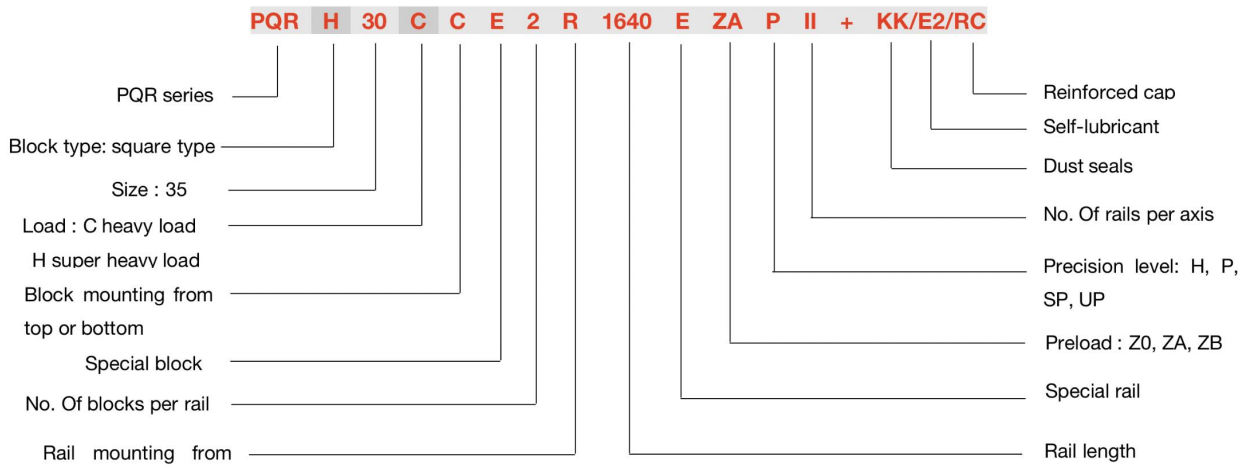
2-4 PQR series -- Silent type roller linear guide

Same with roller type linear guides except for bearing the high load from all directions and high rigidity, as well as adopt the SynchMotion™ technology connector, can reduce the noise, rolling friction resistance, improve operation smooth and prolong the service life. So the PQR series have wider range of industrial applications, suitable for industrials which require high speed, silent and high rigidity.



2-4-1 Dimensions of PQR series

(1) PQRH-CA / PQRH-HA

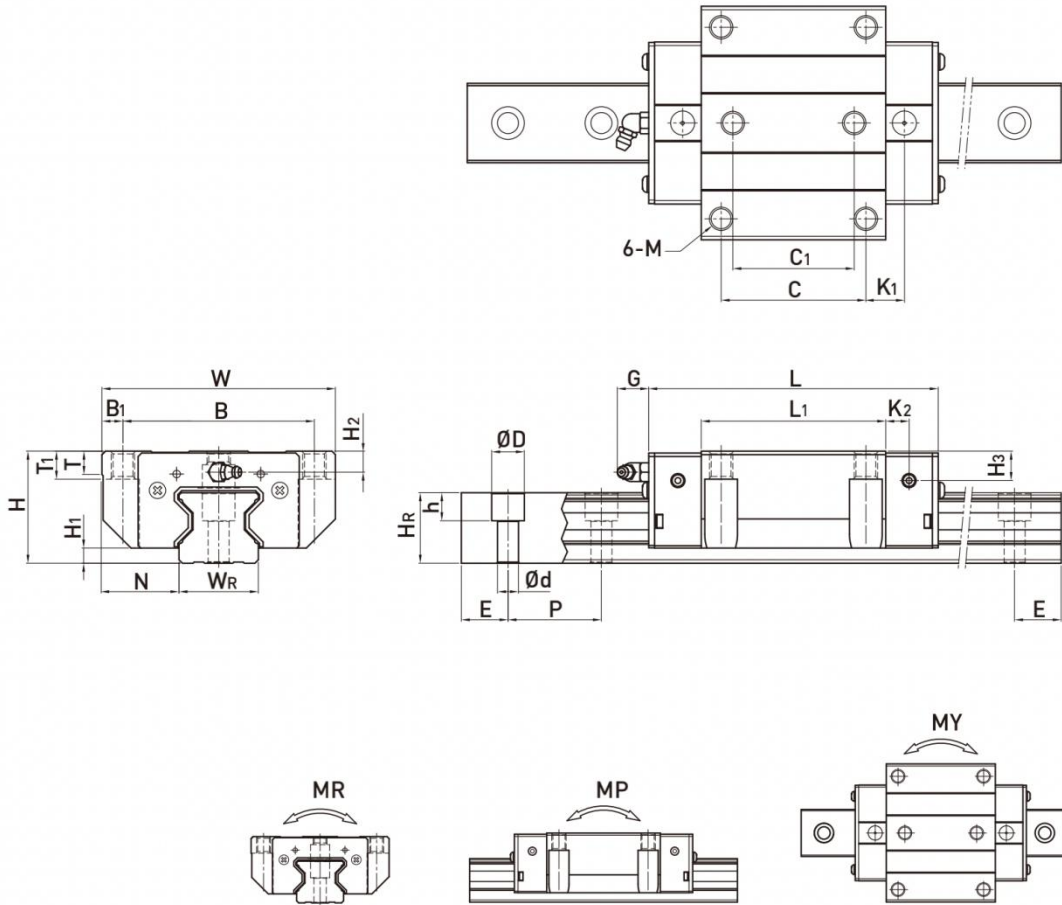


Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)												
	H	H ₁	N	W	B	B ₁	C	L ₁	L	K ₁	K ₂	G	Mxl	T	H ₂	H ₃
PQRH20CA	34	5	12	44	32	6	36	57.5	86	15.8	6	5.3	M5*8	8	8.3	8.3
PQRH25CA	40	5.5	12.5	48	35	6.5	35	66	97.9	20.75	7.25	12	M6*8	9.5	10.2	10
PQRH25HA								50	81	112.9	21.5					
PQRH30CA	45	6	16	60	40	10	40	71	109.8	23.5	8	12	M8*10	9.5	9.5	10.3
PQRH30HA								60	93	131.8	24.5					
PQRH35CA	55	6.5	18	70	50	10	50	79	124	22.5	10	12	M8*12	12	16	19.6
PQRH35HA								72	106.5	151.5	25.25					
PQRH45CA	70	8	20.5	86	60	13	60	106	153.2	31	10	12.9	M10*17	16	20	24
PQRH45HA								80	139.8	187	37.9					

Model	Dimensions of Rail (mm)							Mounting bolt size for rail	Basic dynamic load rating	Basic static load rating	Allowable static rated moment			weight	
	W _a	H _a	D	h	d	P	E				mm	C (kN)	C ₁ (kN)	MRkN-m	MPkN-m
PQRH20CA	20	21	9.5	8.5	6	30	20	M5*20	26.3	38.9	0.591	0.453	0.453	0.4	2.76
PQRH25CA	23	23.6	11	9	7	30	20	M6*20	38.5	54.4	0.722	0.627	0.627	0.6	3.08
PQRH25HA									44.7	65.3	0.867	0.907	0.907	0.74	
PQRH30CA	28	28	14	12	9	40	20	M8*25	51.5	73	1.284	0.945	0.945	0.89	6.06
PQRH30HA									64.7	95.8	1.685	1.63	1.63	1.15	
PQRH35CA	34	30.2	14	12	9	40	20	M8*25	77	94.7	1.955	1.331	1.331	1.56	6.06
PQRH35HA									95.7	126.3	2.606	2.335	2.335	2.04	
PQRH45CA	45	38	20	17	14	52.5	22.5	M12*35	123.2	156.4	3.959	2.666	2.666	3.16	9.97
PQRH45HA									150.8	208.6	5.718	5.086	5.086	4.1	

(2) PQRW-CC / PQRW-HC

PQRW linear guide is flange block , also adopts SynchMotion™ technology which can offer low noise, rolling friction resistance, smooth motion and long running service life, so this roller linear guides are suitable for high speed, silent and high rigidity industrial requirements.

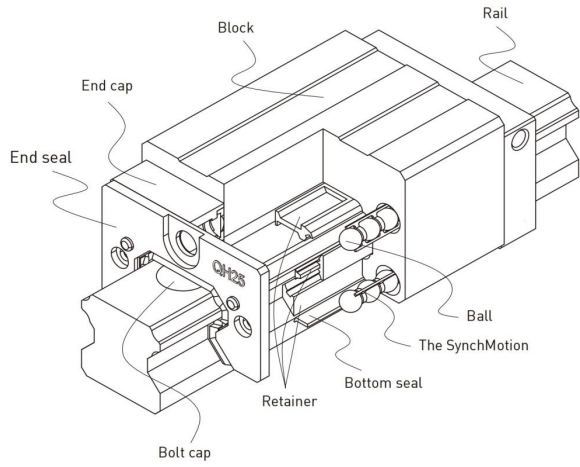


Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)														
	H	H ₁	N	W	B	B ₁	C	C ₁	L ₁	L	K ₁	K ₂	G	M	T	T ₁	H ₂	H ₃
PQRW20CC	30	5	21.5	63	53	5	40	35	57.5	86	13.8	6	5.3	M6	8	10	4.3	4.3
PQRW25CC	36	5.5	23.5	70	57	6.5	45	40	66	97.9	15.75	7.25	12	M8	9.5	10	6.2	6
PQRW25HC									81	112.9	24							
PQRW30CC	42	6	31	90	72	9	52	44	71	109.8	17.5	8	12	M10	9.5	10	6.5	7.3
PQRW30HC									93	131.8	28.5							
PQRW35CC	48	6.5	33	100	82	9	62	52	79	124	16.5	10	12	M10	12	13	9	12.6
PQRW35HC									106.5	151.5	30.25							
PQRW45CC	60	8	37.5	120	100	10	80	60	106	153.2	21	10	12.9	M12	14	15	10	14
PQRW45HC									139.8	187	37.9							

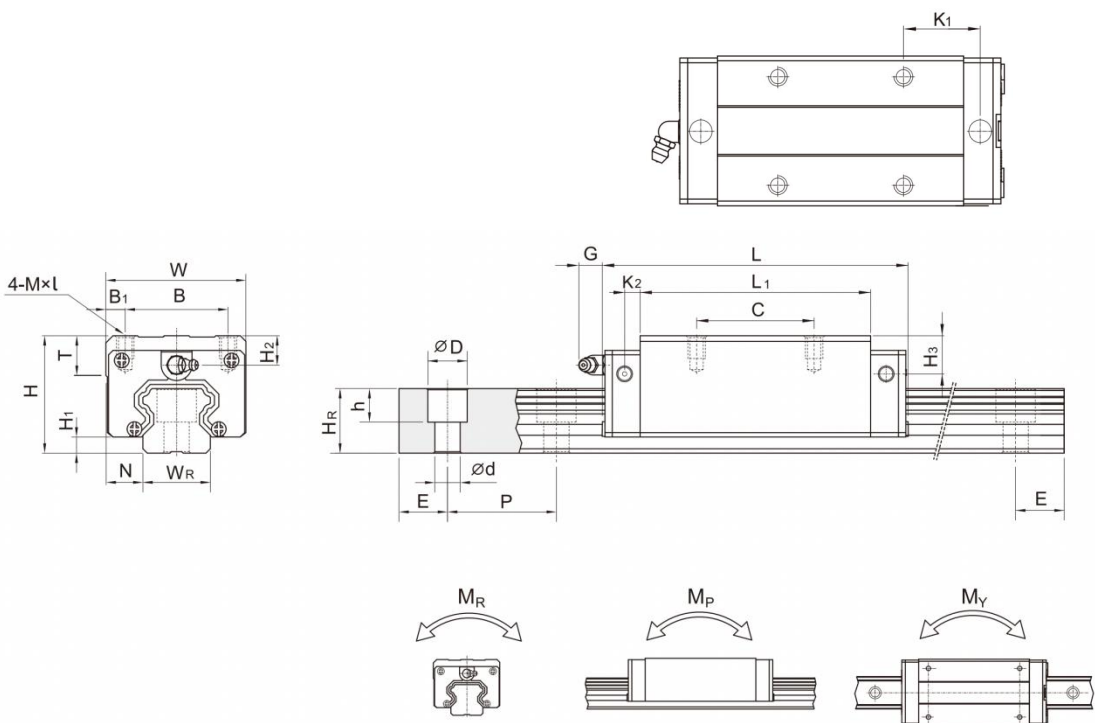
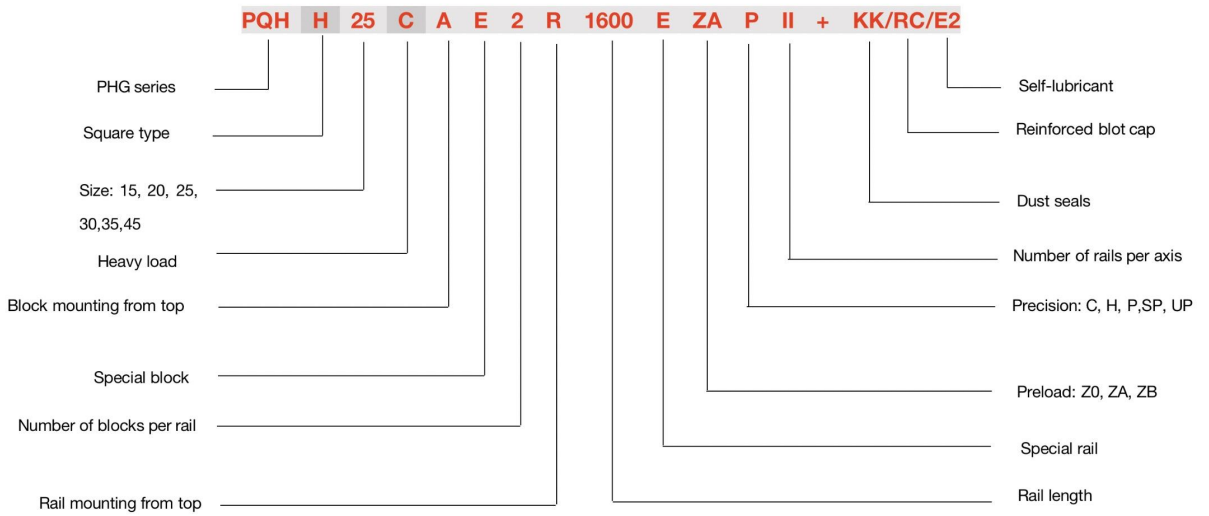
Model	Dimensions of Rail (mm)							Mounting bolt size for rail mm	Basic dynamic load rating C (kN)	Basic static load rating C ₀ (kN)	Allowable static rated moment			weight	
	W _R	H _R	D	h	d	P	E				MRkN-m	MPkN-m	MYkN-m	Block kg	Rail Kg/m
PQRL20CA	20	21	9.5	8.5	6	30	20	M5*20	26.3	38.9	0.591	0.453	0.453	0.32	2.76
PQRL25CA	23	23.6	11	9	7	30	20	M6*20	38.5	54.4	0.722	0.627	0.627	0.5	3.08
PQRL25HA									44.7	65.3	0.867	0.907	0.907	0.62	
PQRL30CA	28	28	14	12	9	40	20	M8*25	51.5	73	1.284	0.945	0.945	0.79	4.41
PQRL30HA									64.7	95.8	1.685	1.63	1.63	1.02	
PQRL35CA	34	30.2	14	12	9	40	20	M8*25	77	94.7	1.955	1.331	1.331	1.26	6.06
PQRL35HA									95.7	126.3	2.606	2.335	2.335	1.63	
PQRL45CA	45	38	20	17	14	52.5	22.5	M12*35	123.2	156.4	3.959	2.666	2.666	2.45	9.97
PQRL45HA									150.8	208.6	5.278	5.086	4.694	3.17	

2-6 PQH series -- Silent type balls linear guide

2-6-1 Dimensions of PQR series



Take size 25 for example:



Model	Dimensions of Assembly (mm)			Dimensions of Block (mm)													
	H	H ₁	N	W	B	B ₁	C	L1	L	K1	K2	G	Mxl	T	H ₂	H ₃	
PQHH15CA	28	4	9.5	34	26	4	26	39.4	61.4	10	5	5.3	M4*5	6	7.95	8.2	
PQHH20CA	30	4.6	12	44	32	6	36	50.5	76.7	11.75	6	12	M5*6	8	6	6	
PQHH20HA							50	65.2	91.4	12.1							
PQHH25CA	40	5.5	12.5	48	35	6.5	35	58	83.4	15.7	6	12	M6*8	8	10	9	
PQHH25HA							50	78.6	104	18.5							
PQHH30CA	45	6	16	60	40	10	40	70	97.4	19.5	6.25	12	M8*10	8.5	9.5	9	
PQHH30HA							60	93	120.4	21.75							
PQHH35CA	55	7.5	18	70	50	10	50	80	113.6	19	7.5	12	M8*12	10.2	15.5	13.5	
PQHH35HA							72	105.8	139.4	20.9							
PQHH45CA	70	9.2	20.5	86	60	13	60	97	139.4	23	10	12.9	M10*17	16	18.5	20	
PQHH45HA							80	128.8	171.2	29.09							

Model	Dimensions of Rail (mm)							Mounting bolt size for rail mm	Basic dynamic load rating C (kN)	Basic static load rating C ₀ (kN)	Allowable static rated moment			weight	
	W _R	H _R	D	h	d	P	E				MRkN-m	MPkN-m	MYkN-m	Block kg	Rail Kg/m
PQHH15CA	15	15	7.5	5.3	4.5	60	20	M4*16	17.94	19.86	0.10	0.08	0.08	0.18	1.45
PQHH20CA	20	17.5	9.5	8.5	6	60	20	M5*16	35.26	33.86	0.26	0.19	0.19	0.29	2.21
PQHH20HA									42.52	42.31	0.31	0.27	0.27	0.38	
PQHH25CA	23	22	11	9	7	60	20	M6*20	41.9	48.75	0.39	0.31	0.31	0.5	3.21
PQHH25HA									50.61	60.94	0.50	0.45	0.45	0.68	
PQHH30CA	28	26	14	12	9	80	20	M8*25	58.26	66.34	0.60	0.5	0.5	0.87	4.47
PQHH30HA									70.32	88.45	0.83	0.89	0.89	1.15	
PQHH35CA	34	29	14	12	9	80	20	M8*25	78.89	86.66	1.07	0.76	0.76	1.44	6.3
PQHH35HA									95.23	115.55	1.45	1.33	1.33	1.9	
PQHH45CA	45	38	20	17	14	105	22.5	M12*35	119.4	135.42	1.83	1.38	1.38	2.72	10.41
PQHH45HA									144.13	180.56	2.47	2.41	2.41	3.59	

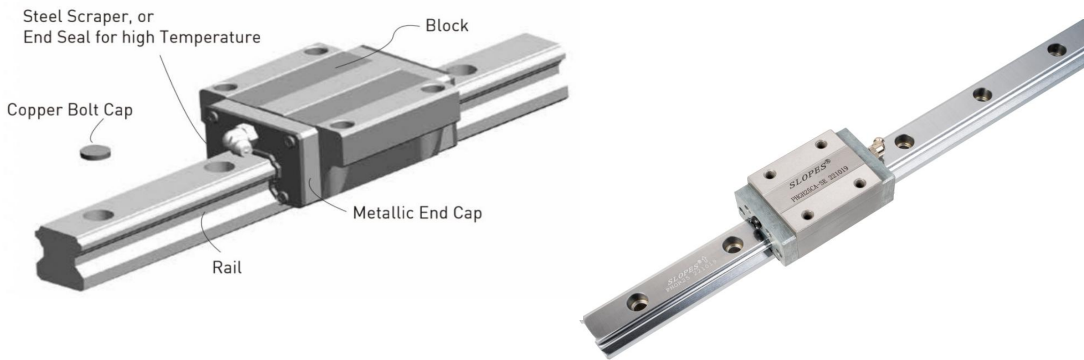
2-7 Surface coating linear guides

PYG External metal parts chrome plated

For the highest level of corrosion protection, all exposed metal surfaces can be plated — typically with a hard chrome or black chrome plating. We also offer black chrome plating with a fluoroplastic (Teflon, or PTFE-type) coating, which provides even better corrosion protection.



2-8 High temperature linear guides



The PYG linear guide can be used in even higher temperatures as a result of using a unique technology for the materials, heat treatment, and the grease can also be used in high temperature environments. Has low rolling resistance fluctuation in response to changes in temperature and a dimension consistency treatment has been applied, which has provided excellent dimensional consistency.



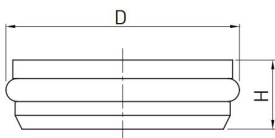
Dimensions of copper bolt cap

bolt size	diameter (mm)		bolt size	diameter (mm)	
	D	H		D	H
M3	6.15	1.2	M8	14.15	3.5
M4	7.65	1.2	M12	20.15	4
M5	9.65	2.5	M14	23.15	4
M6	11.15	1.8	M16	26.15	4

Dimensions of copper bolt cap

bolt size	diameter (mm)		bolt size	diameter (mm)	
	D	H		D	H
M3	6.15	1.2	M8	14.22	3.5
M4	7.65	1.2	M12	20.25	4
M5	9.65	2.5	M14	23.25	4
M6	11.22	2.8	M16	26.2	4

Dimensions of reinforced cap

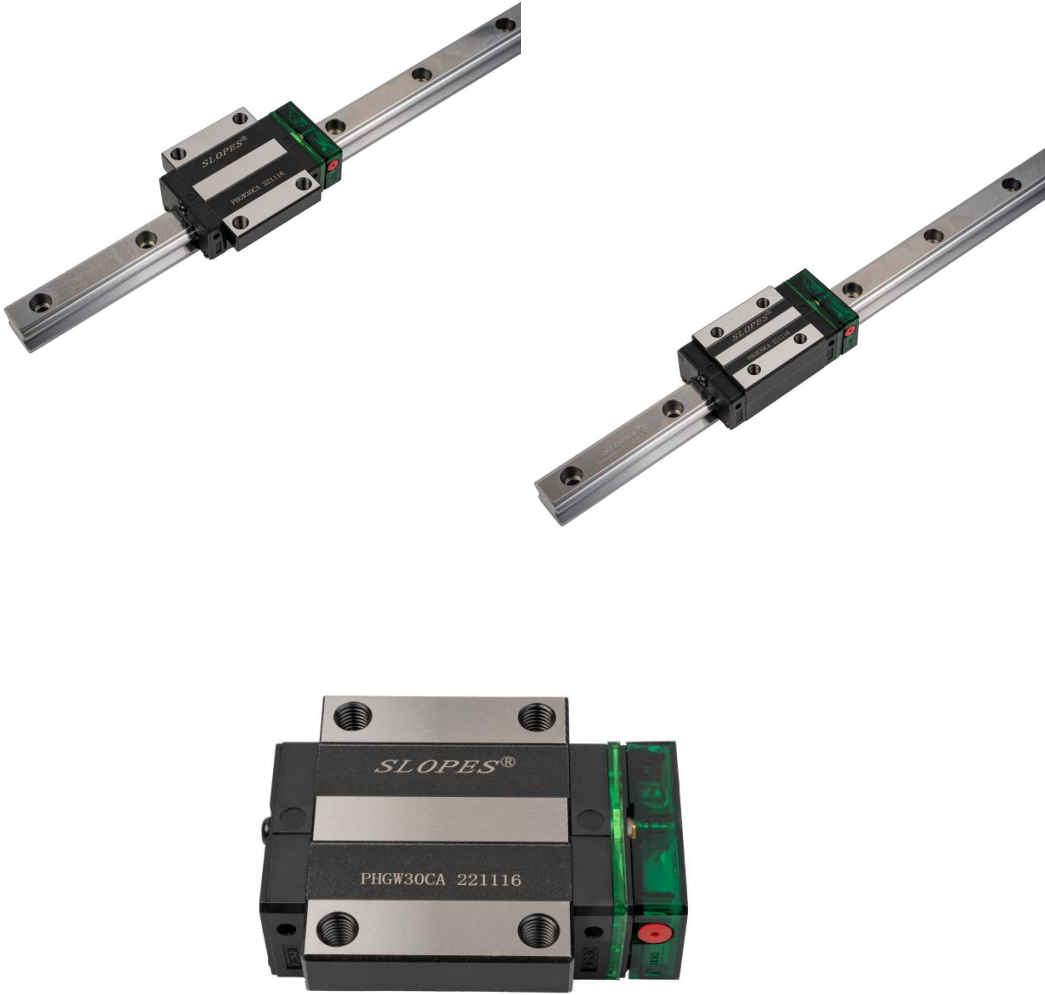


bolt size	Diameter (mm)		Rail size				
	D	H	PHGR	PEGR	PWER	PMGNR	PRGR
M3	6.15	1.3		15		12, 15	
M4	7.65	1.1	15	15U	17, 21, 27		15
M5	9.8	3	20	20			20
M6	11.4	2.8	25	25, 30	35		25
M8	14.6	3.5	30, 35	35, 30U			30, 35
M12	20.5	4	45				45
M14	23.5	5	55				55
M16	26.6	5	65				65

2-9 Self-lubricated linear guides

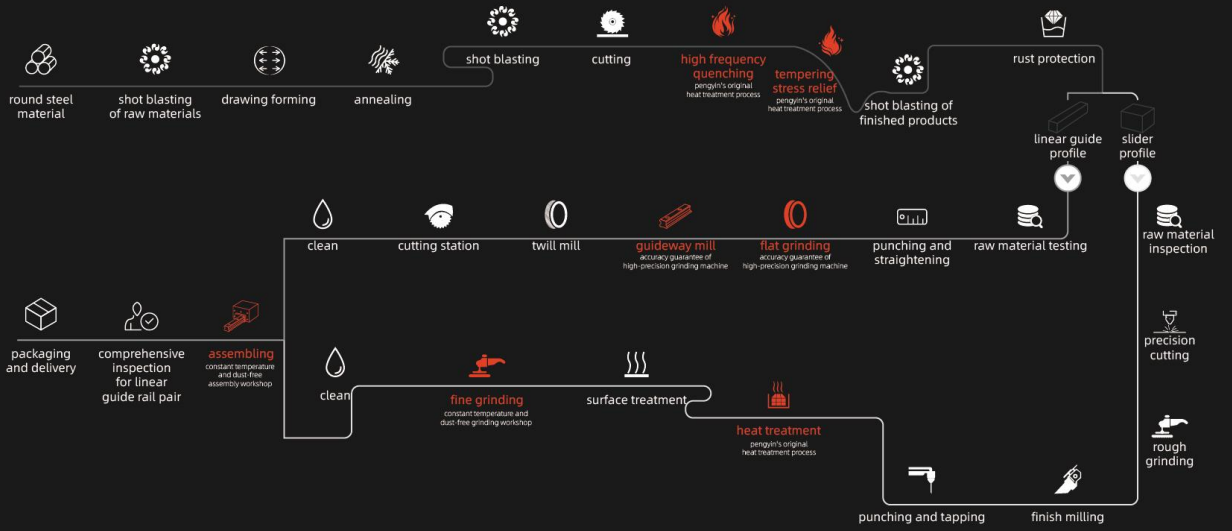
Application:

- 1) General automation machinery
- 2) Manufacturing machines: plastic injection, printing, paper making, textile machine, food processing machine, wood working machine and so on.
- 3) Electronic machinery: semiconductor equipment, robotics, X-Y table, measuring and inspecting machine
- 4) Others: medical equipment, transporting machine, construction equipment



工艺流程

Process Flow



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