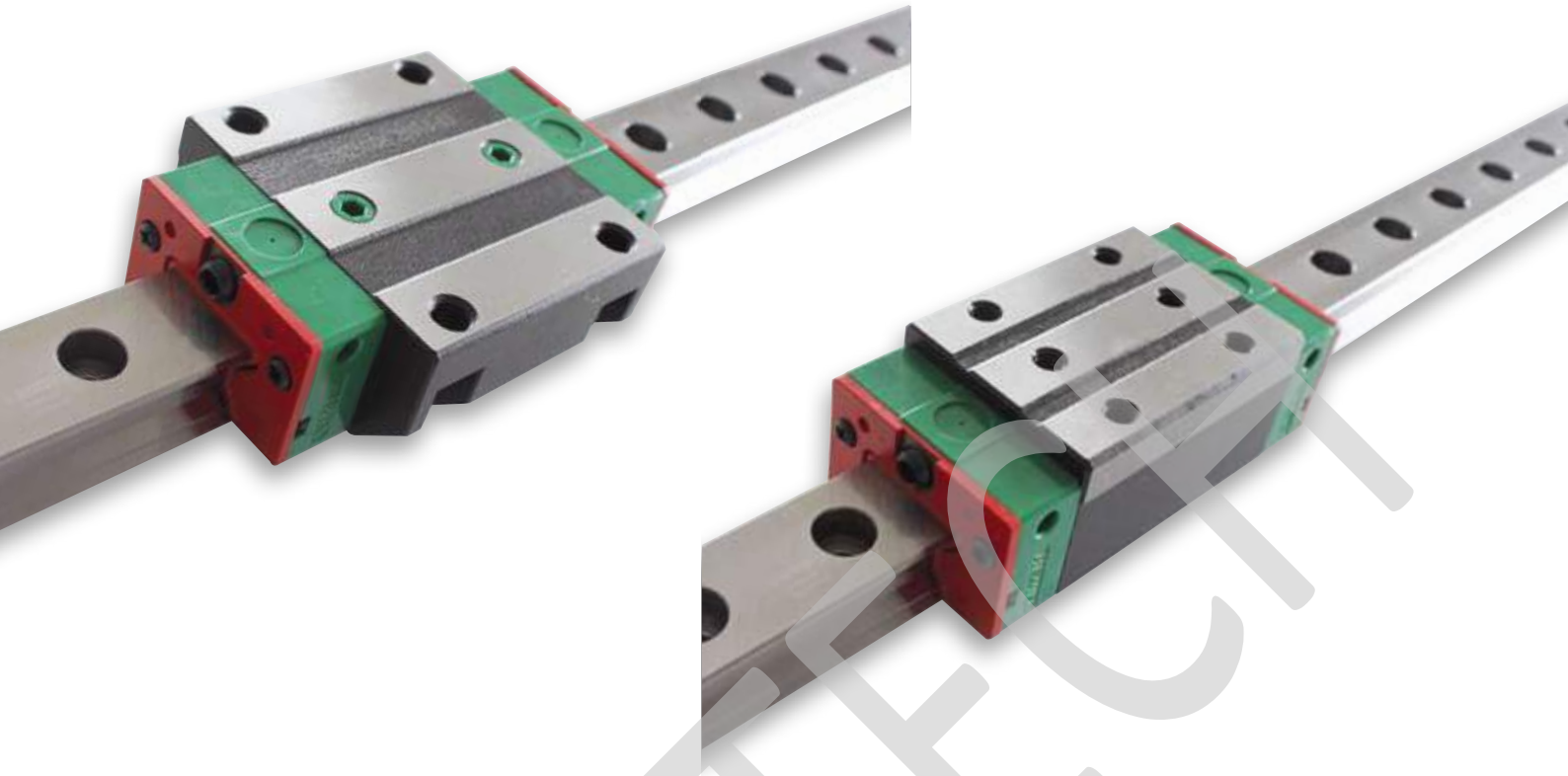
Roller linear guideway

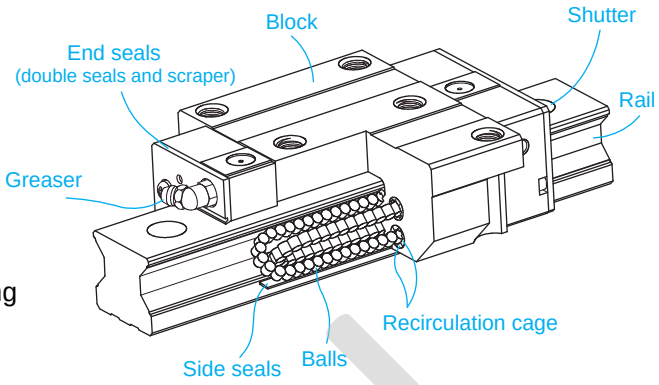


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COMPOSITION OF THE SYSTEM

RUNNER BLOCKS

The guide roller block have a hardened structure
by induction and rectified, with four flow roller paths.



Dust resistance :

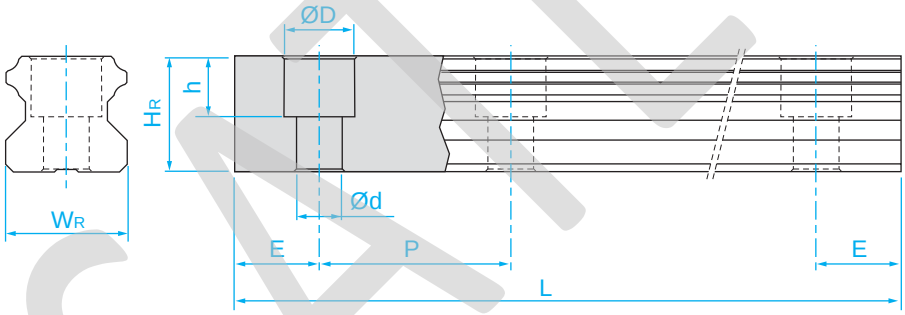
All guides roller skates come with gaskets:
- The end joints (wipers)
- The side seals to increase the life by preventing dust entering from block side

Lubrication :

One nipple is provided with all guide blocks.
The standard location of nipples on all guide blocks is at the ends.
However, for some types of assembly, the grease can be mounted on the side (by demand).

GUIDE RAILS :

Our guide rails are hardened and ground steel, they are delivered either in standard lengths or cut to requested length and include plugs for mounting holes.
It is possible to increase length by junction (guide rail with the rectified ends).



Type	Rail dimensions - mm									
	WR	HR	ØD	Ød	h	*Fixation* Rail	Standard Length	Weight Kg/M	P	E(1)
RGR25RH	23	23,6	11	7	9	M6x20	4 000	3,08	30	(1)
RGR35RH	34	30,2	14	9	12	M8x25	3 960	6,06	40	
RGR45RH	45	38	20	14	17	M12x35	3 930	9,97	52,5	
RGR55RH	53	44	23	16	20	M14x45	3 900	13,98	60	

Specify the first hole when ordering (E)
Mounting bolt for rail

Order example	**RGR**	**25**	**RH**	**1000**
Type				
Dimension				
Precision type				
Length				

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PRECISION CLASS

Linear roller guides are available in three classes of accuracy, the standard accuracy class of stock is the H series, you will find in Table B tolerances of the bearing surfaces.

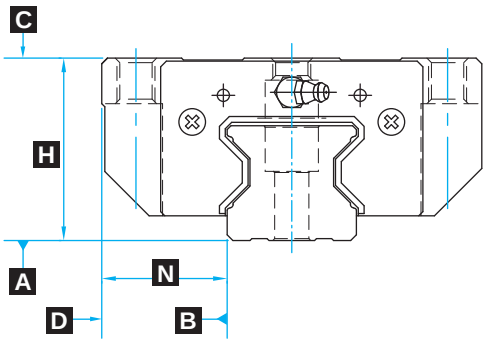


Table B - Precision classes of guideway type RG (Units : mm)

Tolerances mm		Super high precision SP	High precision P	Precision H
		RG - 25, 35		
Tolerances	H	0 / -0.02	0 / -0.04	+/- 0.04
Tolerances	N	0 / -0.02	0 / -0.04	+/- 0.04
Variation for	H	0.005	0.007	0.015
Variation for	N	0.005	0.007	0.015
Parallelism of	C compared to A		Table B1	
Parallelism of	D compared to B		Table B1	
		RG - 45,55		
Tolerances	H	+/- 0.03	0 / -0.05	+/- 0.05
Tolerances	N	+/- 0.03	0 / -0.05	+/- 0.05
Variation for	H	0.005	0.007	0.015
Variation for	N	0.007	0.010	0.020
Parallelism of	C compared to A		Table B1	
Parallelism of	D compared to B		Table B1	

PARALLELISM OF GUIDEWAYS

Table B1 - Parallelism of standard guideway RG (Units : µm)

Precision	Length of rail in mm												
	< 100	< 200	< 300	< 500	< 700	< 900	< 1 100	< 1 500	< 1 900	< 2 500	< 3 100	< 3 600	< 4 000
H	7	9	10	12	13	15	16	18	20	22	25	27	28
P	3	4	5	6	7	8	9	11	13	15	18	20	21
SP	2	2	3	3	4	5	6	7	8	10	11	14	15

PRELOAD LEVELS

The level of standard recommended preload is available from stock is the code ZA.

Table B2 -Definition of preload

Preload	Code	Preload level	Function conditions
Low preload	**Z0**	0,02C-0,04C	Very soft load / Low impact / Low precision
Medium preload	**ZA**	0,07C-0,09C	Medium load / High precision
High preload	**ZB**	0,12C-0,14C	High load / High shock and vibration

Order example **RGH 25 - CA ZA H**

Serie
Dimension
Type
Preload
Precision

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LIFETIME OF LINEAR GUIDEWAY

The basic dynamic load conforms to the ISO standard (IO14728 -1).
The actual load will affect the nominal life of a linear guide.

Based on the nominal dynamic load and the actual load, the nominal value of life can be calculated using Equation 1 below.

- Equation 1 : $$L=\left(\frac{C}{P}\right)^{\frac{10}{3}}\cdot 100km$$

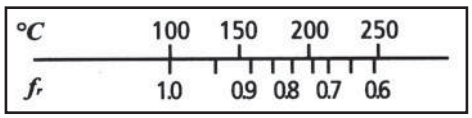
L : Nominal lifetime
C : Dynamic load
P : Load
f_h : Hardness factor
f_t : Temperature factor
f_w : Load factor

If environmental factors are taken into consideration, the design life will be greatly influenced by the conditions of the translation, hardness, and temperature of the linear guide.
The relationship between these factors is expressed in Equation 2.

- Equation 2 : $$L=\left(\frac{f_h\cdot f_t\cdot C}{f_w\cdot P}\right)^{\frac{10}{3}}\cdot 100km$$

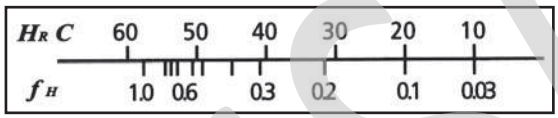
Temperature factor (f_t)

When the temperature of a linear guide exceeds 100 ° C, the load capacity and lifetime decrease.
In this case, the dynamic and static loads must be multiplied by the temperature factor ft.



Hardness factor (f_h)

Generally the contact area between the rollers and the guide rail has a surface hardness of between 55 and 60 HRc.
When this hardness is not obtained (annealing, machining ...), eligible costs and lifetime decrease.
In this case, the dynamic and static loads should be multiplied by the temperature factor ft.



Load factor (f_w)

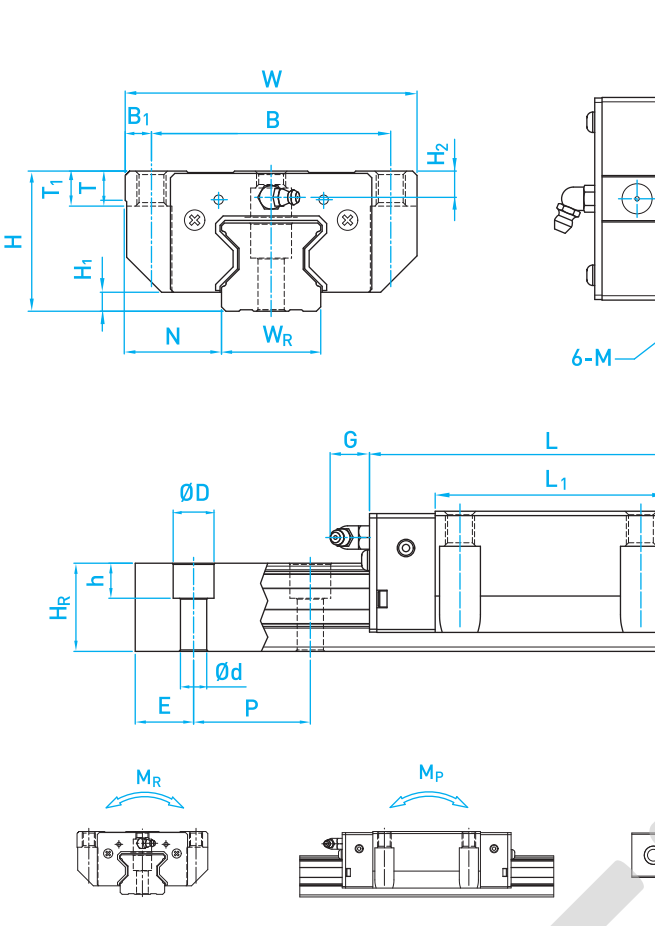
The loads acting on the linear guide include the weight of the greasers the inertial load at the time of acceleration and deceleration, and induced times.
It is particularly dificult to estimate these costs indices due to vibration and mechanical impacts, therefore, the load on the linear guide must be divided by the factor fw.

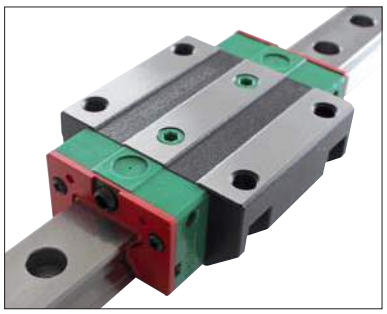
Table n°4 - load factor

Working condition	Speed of the system	f_w
No shocks / No vibrations	V < 15 m / min	1 - 1.2
Light shocks / Light vibrations	15 m / min < V < 60 m / min	1.2 - 1.5
Normal load	60 m / min < V < 120 m / min	1.5 - 2.0
Significant shocks and load	V > 120 m / min	2.0 - 3.5

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Type RGW





Type	Dimensions - mm											Greaser					Basic load kN		Static moment kN-m			Weight block	Type rail
	H	W	L	B	C	C1	H1	N	B1	L1	M	T	T1	G	H2	H3	Dyn. C	Stat. Co	M_R	M_P	M_Y	g	
RGW25CC	36	70	97,9	57	45	40	5,5	23,5	6,5	64,5	M8	9,5	10	12	6,2	6	27,7	57,1	0,758	0,605	0,605	670	RGR
RGW25HC	36	70	114,4	57	45	40	5,5	23,5	6,5	81	M8	9,5	10	12	6,2	6	33,9	73,4	0,975	0,991	0,991	860	
RGW35CC	48	100	124	82	62	52	6,5	33	9	79	M10	12	13	12	9	12,6	57,9	105,2	2,17	1,44	1,44	1 610	
RGW35HC	48	100	151,5	82	62	52	6,5	33	9	106,5	M10	12	13	12	9	12,6	73,1	142	2,93	2,6	2,6	2 210	
RGW45CC	60	120	153,2	100	80	60	8	37,5	10	106	M12	14	15	12,9	10	14	92,6	178,8	4,52	3,05	3,05	3 220	
RGW45HC	60	120	187	100	80	60	8	37,5	10	139,8	M12	14	15	12,9	10	14	116	230,9	6,33	5,47	5,47	4 410	
RGW55CC	70	140	183,7	116	95	70	10	43,5	12,0	125,5	M14	16	17	12,9	12	17,5	130,5	252	8,01	5,4	5,4	5 180	
RGW55HC	70	140	232,0	116	95	70	10	43,5	12,0	173,8	M14	16	17	12,9	12	17,5	167,8	348	11,15	10,25	10,25	7 340	

Order example RG | W | 25 | CC | ZA | H

Block type

Size

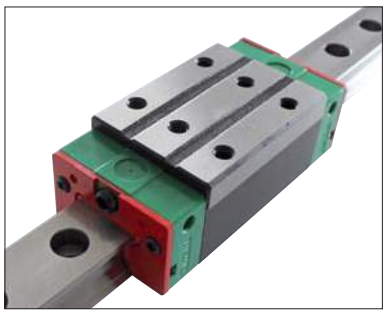
CC : Standard block
HC : Heavy load

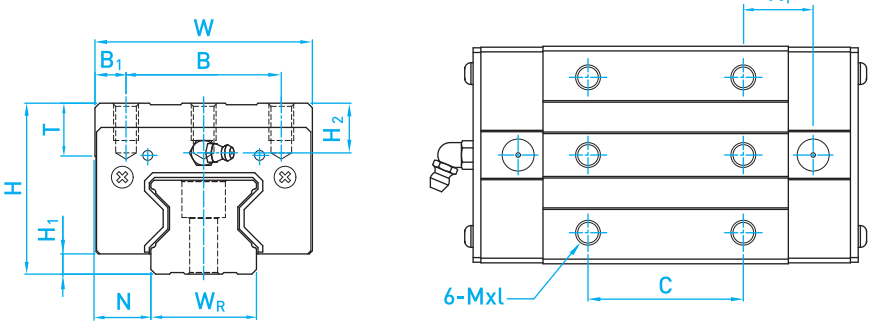
ZO : Light preload
ZA : Middle preload

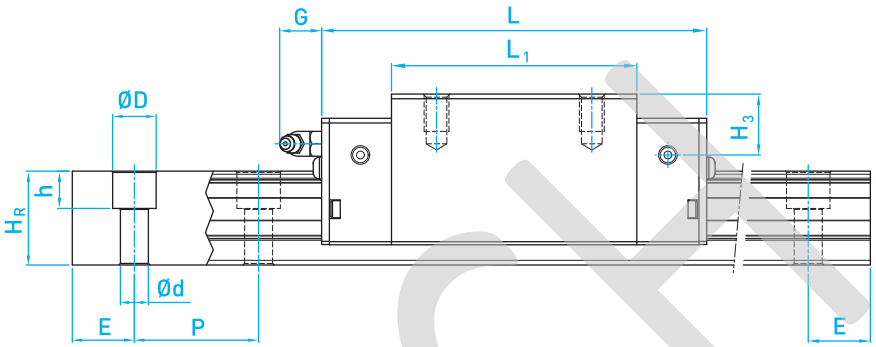
H : High precision

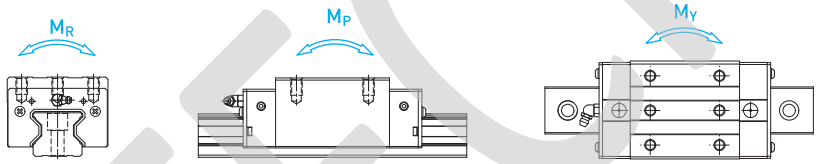
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Type RGH









Type	Dimensions - mm										Greaser				Basic load kN		Static moment kN-m			Weight block	Type rail
	H	W	L	B	C	H1	N	B1	L1	Mxl	T	G	H2	H3	Dyn. C	Stat. Co	M_R	M_P	M_Y	g	
RGH25CA	40	48	97,5	35	35	5,5	12,5	6,5	64,5	M6x8	9,5	12	10,2	10	27,7	57,1	0,758	0,605	0,605	550	RGR
RGH25HA	40	48	114,4	35	50	5,5	12,5	6,5	81	M6x8	9,5	12	10,2	10	33,9	73,4	0,975	0,991	0,991	700	
RGH35CA	55	70	124	50	50	6,5	18	10	79	M8x12	12	12	16	19,6	57,9	105,2	2,17	1,44	1,44	1 430	
RGH35HA	55	70	151,5	50	72	6,5	18	10	106,5	M8x12	12	12	16	19,6	73,1	142,0	2,93	2,60	2,60	1 860	
RGH45CA	70	86	153,2	60	60	8	20,5	13	106	M10x17	16	12,9	20	24	92,6	178,8	4,52	3,05	3,05	2 970	
RGH45HA	70	86	187	60	80	8	20,5	13	139,8	M10x17	16	12,9	20	24	116,0	230,9	6,33	5,47	5,47	3 970	
RGH55CA	80	100	183,7	75	75	10	23,5	12,5	125,5	M12x18	17,5	12,9	22	27,5	130,5	252,0	8,01	5,40	5,40	4 642	
RGH55HA	80	100	232,0	75	95	10	23,5	12,5	173,8	M12x18	17,5	12,9	22	27,5	167,8	348,0	11,15	10,25	10,25	6 400	

Order example | RG | H | 25 | CA | ZA | H

Block type

Size

CA : Standard block
HA : Heavy load

ZO : Light preload
ZA : Middle preload

H : High precision

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