



# High Rigidity Roller Type Linear Guideway **RG** Series

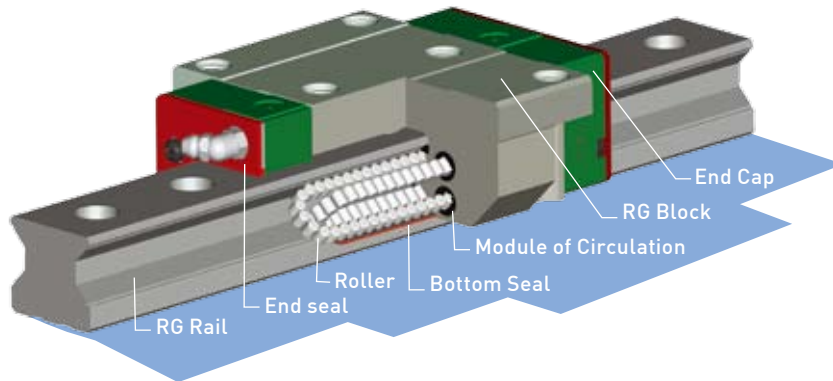
The new RG series from Hiwin features a roller as the rolling element instead of steel balls. The roller series offers super high rigidity and very high load capacities.

The RG series is designed with a 45-degree angle of contact. Elastic deformation of the linear contact surface, during load, is greatly reduced thereby offering greater rigidity and higher load capacities in all 4 load directions.

Section of Front View



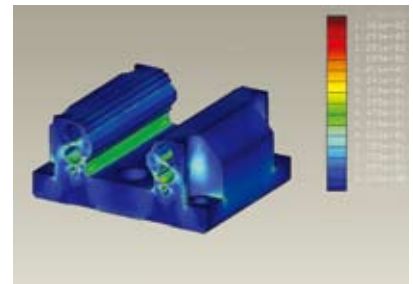
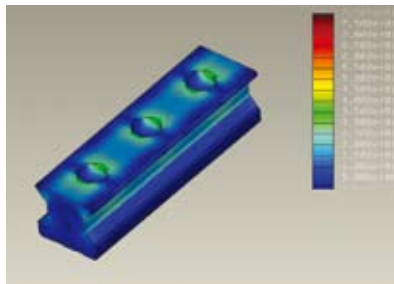
## Configuration of RG Series



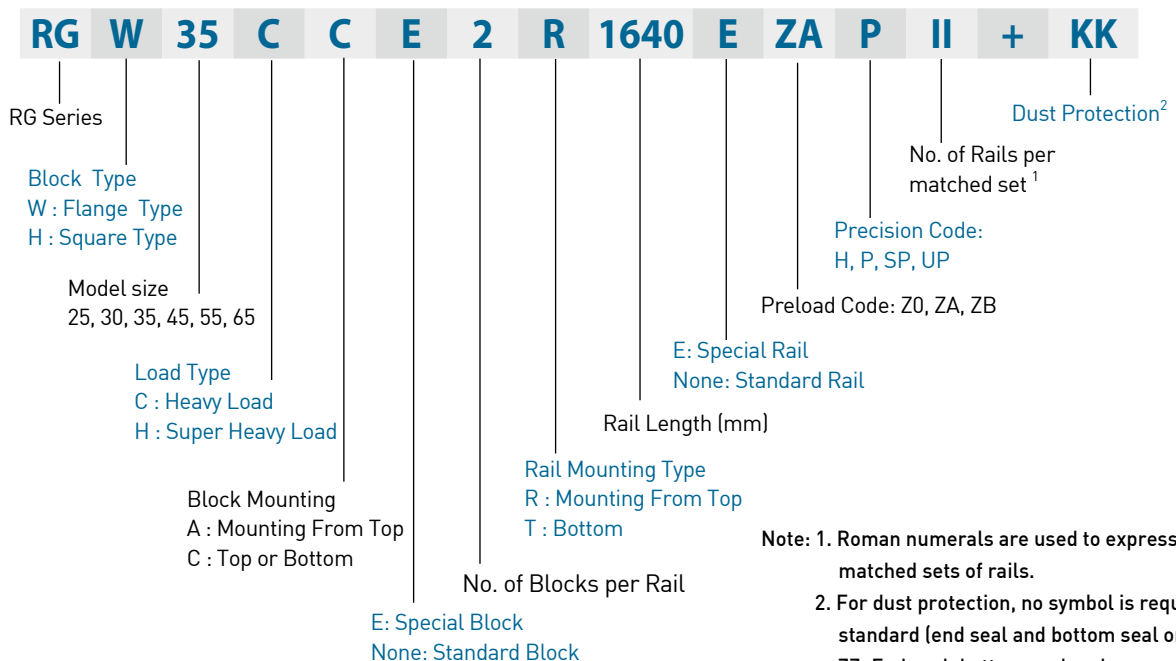
## Applications

- CNC machining centers
- Heavy duty cutting machines
- CNC grinding machines
- Injection molding machines
- Plano millers
- Automation systems
- Transportation equipment
- Electric discharge machines

## Structure Analysis



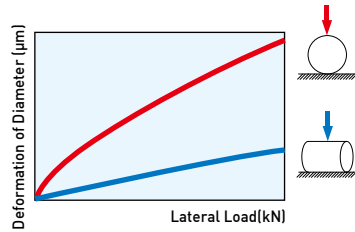
## Model Number



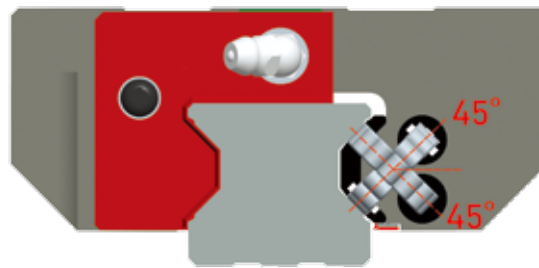
- Note: 1. Roman numerals are used to express the number of matched sets of rails.  
 2. For dust protection, no symbol is required if it is standard (end seal and bottom seal only).  
 ZZ: End seal, bottom seal and scraper  
 KK: Double seals, bottom seal and scraper  
 DD: Double seals and bottom seal

## Features of the RG Series

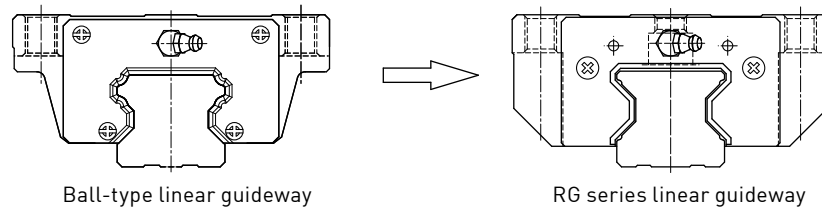
Super high rigidity



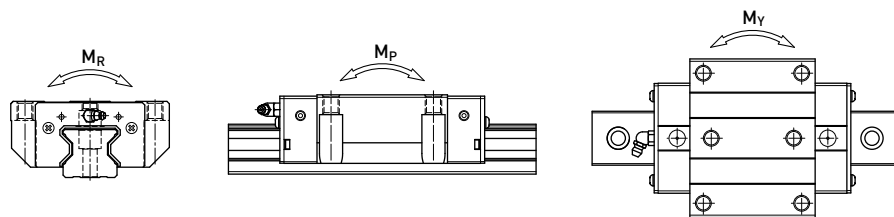
Super high load capacity



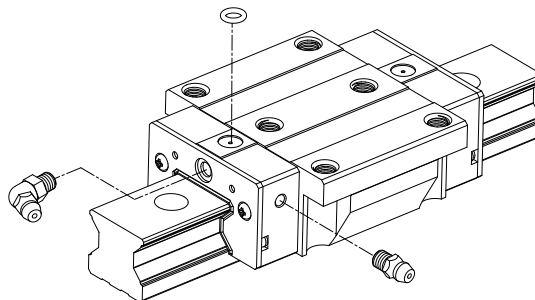
Operating life increased



High moment capacity



Lubrication:  
The standard grease nipple is mounted in the end of the block, and that may be mounted in the side or top of the block.



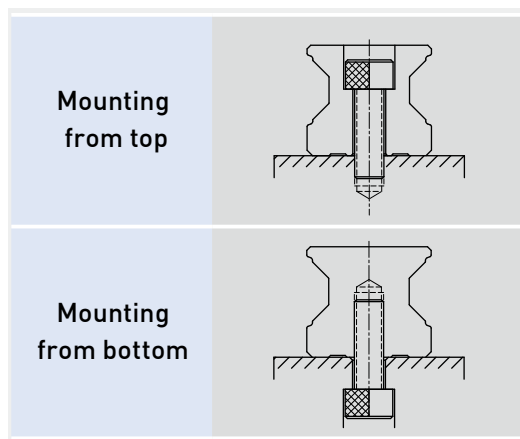
## Comparison of Features

Type	RG series	4 Rows Ball Bearing	2 Rows Ball Bearing
Structure			
Load capacity	★★★★	★★	★
Rigidity	★★★★	★★	★
Accuracy	★★★★	★★★★	★★★★
Life	★★★★	★★	★

## RG Block Types

Type	Model	Shape	Height (mm)	Rail Length (mm)
Square	RGH-CA		40	100
	RGH-HA		90	4000
Flange	RGW-CC		36	100
	RGW-HC		90	4000

## RG Rail Types



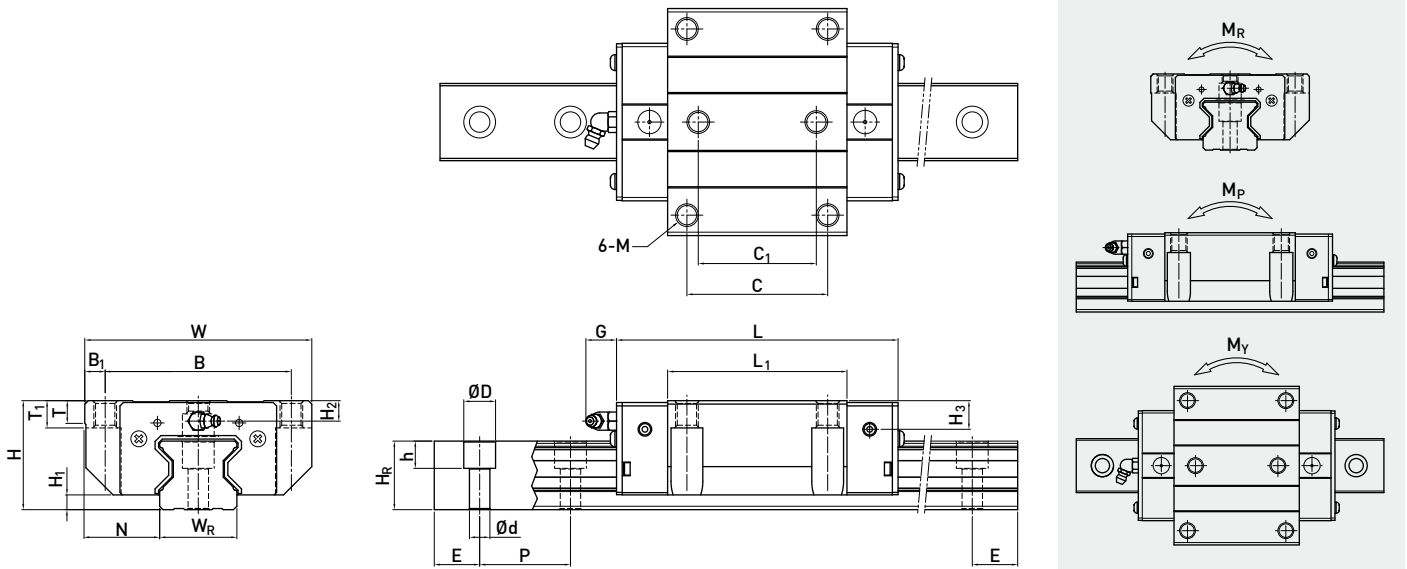
## Preload

Class	Code	Preload
Light preload	Z0	0.02 C~ 0.04C
Medium preload	ZA	0.07 C~ 0.09C
Heavy preload	ZB	0.12 C~ 0.14C



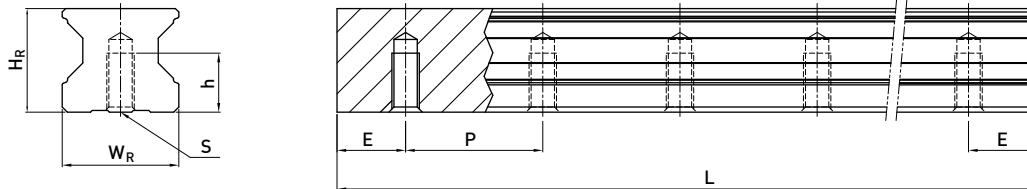


# Dimensions for RGW-CC/RGW-HC



Model No.	Dimensions of Assembly (mm)			Dimensions of Block (mm)													Mounting Bolt for Rail (mm)	Basic Dynamic Load Rating C (kN)	Basic Static Load Rating C <sub>0</sub> (kN)	Static Rated Moment			Weight								
	H	H <sub>1</sub>	N	W	B	B <sub>1</sub>	C	C <sub>1</sub>	L <sub>1</sub>	L	G	M	T	T <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>				W <sub>R</sub>	H <sub>R</sub>	D	h	d	P	E	M <sub>R</sub> (kN-m)	M <sub>P</sub> (kN-m)	M <sub>Y</sub> (kN-m)	Block (kg)	Rail (kg/m)
RGW25CC	36	5.5	23.5	70	57	6.5	45	40	64.5	97.9	12	M8	9.5	10	6.2	6	23	23.6	11	9	7	30	20	M6x20	27.7	57.1	0.758	0.605	0.605	0.67	3.08
RGW25HC									81	114.4															33.9	73.4	0.975	0.991	0.991	0.86	
RGW30CC	42	6	31	90	72	9	52	44	71	109.8	12	M10	9.5	10	6.5	10.8	28	28	14	12	9	40	20	M8x25	39.1	82.1	1.445	1.06	1.06	1.06	4.41
RGW30HC									93	131.8															48.1	105	1.846	1.712	1.712	1.42	
RGW35CC	48	6.5	33	100	82	9	62	52	79	124	12	M10	12	13	9	12.6	34	30.2	14	12	9	40	20	M8x25	57.9	105.2	2.17	1.44	1.44	1.61	6.06
RGW35HC									106.5	151.5															73.1	142	2.93	2.6	2.6	2.21	
RGW45CC	60	8	37.5	120	100	10	80	60	106	153.2	12.9	M12	14	15	10	14	45	38	20	17	14	52.5	22.5	M12x35	92.6	178.8	4.52	3.05	3.05	3.22	9.97
RGW45HC									139.8	187															116	230.9	6.33	5.47	5.47	4.41	
RGW55CC	70	10	43.5	140	116	12	95	70	125.5	183.7	12.9	M14	16	17	12	17.5	53	44	23	20	16	60	30	M14x45	130.5	252	8.01	5.4	5.4	5.18	13.98
RGW55HC									173.8	232															167.8	348	11.15	10.25	10.25	7.34	
RGW 65CC	90	12	53.5	170	142	14	110	82	160	232	12.9	M16	22	23	15	15	63	53	26	22	18	75	35	M16x50	213	411.6	16.20	11.59	11.59	11.04	20.22
RGW 65HC									223	295															275.3	572.7	22.55	22.17	22.17	15.75	

# Dimensions for RGR-T (Rail Mounting from Bottom)



Model No.	Dimensions of Rail (mm)						Weight (kg/m)
	WR	HR	S	h	P	E	
RGR25T	23	23.6	M6 x1P	12	30	20	3.36
RGR30T	28	28	M8 x1.25P	15	40	20	4.82
RGR35T	34	30.2	M8 x1.25P	17	40	20	6.48
RGR45T	45	38	M12x1.75P	24	52.5	22.5	10.83
RGR55T	53	44	M14x2P	24	60	30	15.15
RGR65T	63	53	M20x2.5P	30	75	35	21.24

\*The specifications in this catalog are subject to change without notification.

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