

7. Roller Linear Motion Guide R Series

1) Structure of R Series

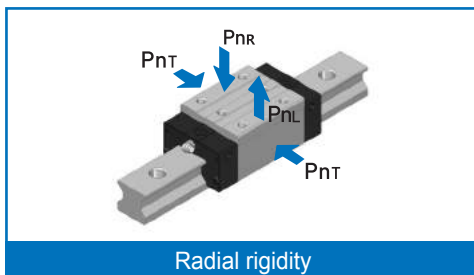
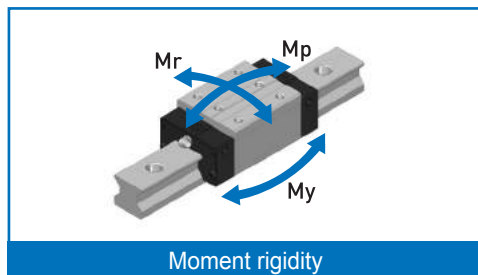
WON Linear Motion Guide R Series uses rollers as a rolling element between the raceway surface of a rail and a block and its four-row cylindrical roller forms a contact angle of 45° which bears equal load for vertical tensile compression load and horizontal load.

A roller used as a rolling element has less elastic displacement than a ball so it has small displacement for external load. Also the contact area with the roller is wide so that it has advantages such as high rigidity, bearing against big load, long life, impact resistance and wear resistance as well as less friction resistance that supports smooth motion and quite running.

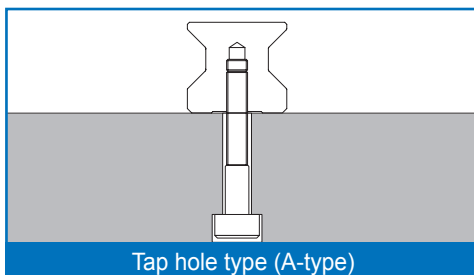
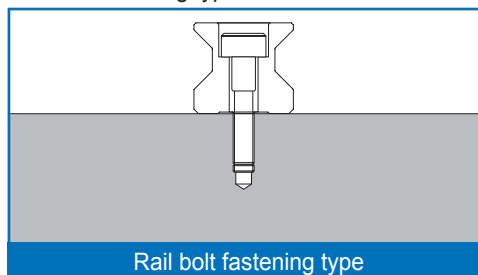
Moreover if the roller is preloaded, it can enhance the rigidity of Linear Motion guide.

2) Features of R Series

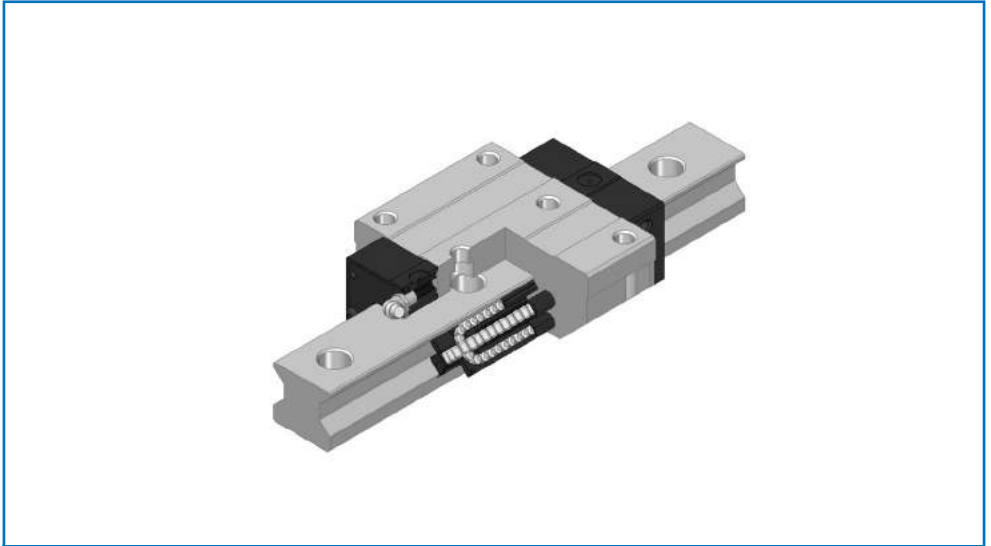
- a. High quality and very effective in realizing high precision and elimination of labor
- b. High rigidity and high precision which can realize the stable travel for a long time
- c. Great wear resistance and friction resistance which ensures a long life
- d. High rigidity and overload capacity compared to ball types of the same model no.
- e. Excellent vibration resistance since it has less displacement against impact load or variable load than ball types and vibration decay time is shorter compared to natural frequency.
- f. Bigger basic static load rating than ball-type Linear Motion guide with the same specifications allows the compact design using smaller model no. than ball types. If same model no. is used, it achieves longer life due to bigger load rating.
- g. Various specification for easy design



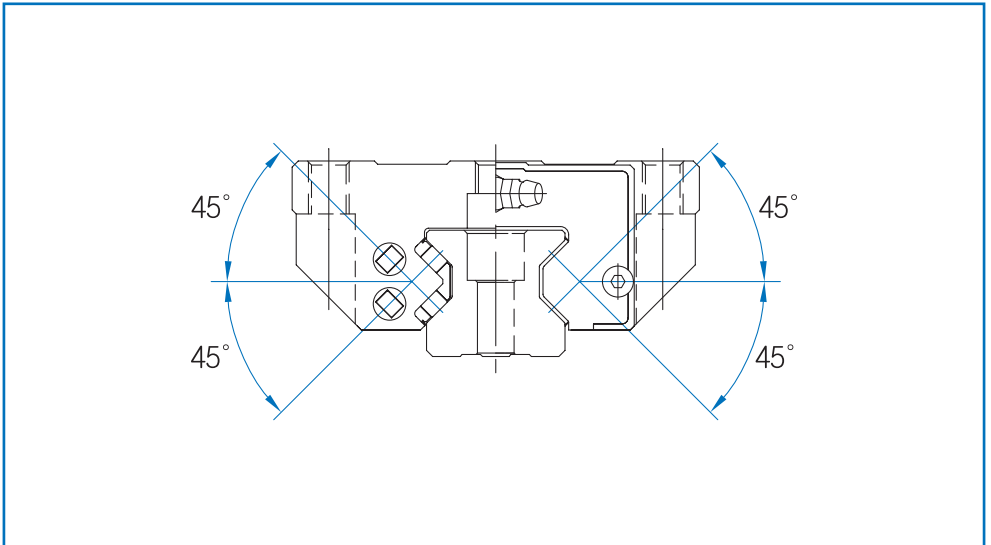
Rail bolt fastening type



Roller Linear Motion Guide R Series

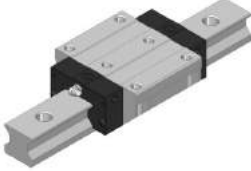
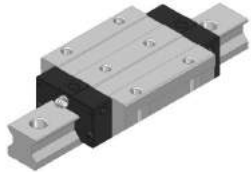
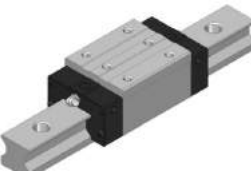
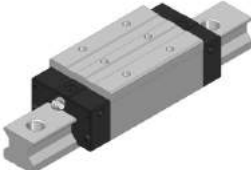


R Series

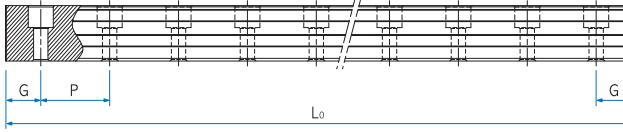


Cross Section

Types and Features

Category	Type	Shape & Features		
Flange type	R-F		<ul style="list-style-type: none"> - With the tapped flange of a lock, it can be assembled both from bottom to top and from top to bottom - A 4-direction equal load type with high rigidity and high load 	Machine tool, CNC machining center, CNC tapping center, NC milling machine, boring machine, multiple machining center, planer miller, large injection machine, heavy-duty cutting machine, wire-cut pentahedral processing center, display test equipment
	R-FL		<ul style="list-style-type: none"> - Having the roller contact structure and the cross section identical to those of S-F Series, it increased load rating by extending the whole length (L_1) of Linear Motion guide block - A 4-direction equal load type with high rigidity and high load 	
Compact type	R-R		<ul style="list-style-type: none"> - With the tapped top side of a block, a compact type that the width of Linear Motion guide block is minimized - A 4-direction equal load type with high rigidity and high load 	
	R-RL		<ul style="list-style-type: none"> - Having the cross section identical to that of H-R Series, it increased load rating by extending the whole length (L_1) of Linear Motion guide block - A 4-direction equal load type with high rigidity and high load 	

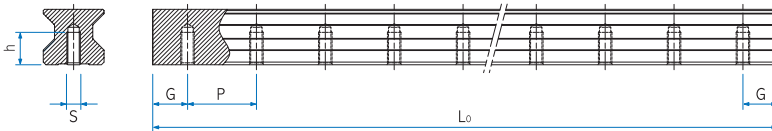
Standard and maximum length of a rail



Unit : mm

Model No.	35	45	55
Standard length	280	570	780
	520	885	900
	920	1095	1140
	1240	1305	1380
	1400	1515	1620
	∴	∴	∴
	1960	2040	2100
	2360	2460	2580
	2840	2985	3060
Standard pitch P	40	52.5	60
G	20	22.5	30
Max. length	4000		

Standard tap hole type of a rail



Model No.	S	h(mm)
R35	M8	17
R45	M12	24
R55	M14	24