

WRC Wide Rail Ball Type Linear Guide Series

WRC Product Feature

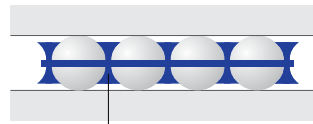
The **cpc** WRC Linear Guide Series has a wide rail which can absorb larger torque from Mr direction. With the O-type arrangement for the four row ball circulation design, the contact angle between the rail and ball is 45 degrees which can realize the 4 directional load effects. In addition, the runner block for the same size uses larger and more balls, so will outperform competitor's models by 10% to 30% regarding load capabilities. The products have characteristics of high load, high moment, and high rigidity.



Low-noise, high-quality, and high-speed patent ball chain

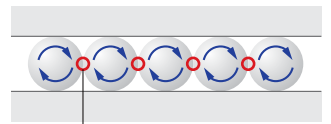
WRC ball chain patent design provides large contact area between ball which can provide better maintenance of oil film; achieve low noise; balls can operate with higher speed; extend the product service life.

Low noise ball chain



The contact point is between balls and ball chain, so the surface pressure is low.

Traditional Ball type linear guide

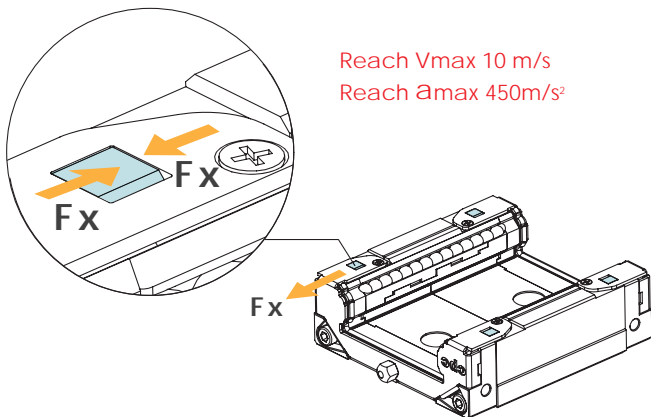


The Ball type linear guide's contact point is only between balls, thus the surface pressure is high.

Reinforcement plate patent design

Using 2 stainless steel reinforcement plates, the L type design can fasten the screws onto the top and bottom of the runner block, reinforcing the rigidity of the end caps and cladding.

The WRC type uses the stainless steel reinforcement plates to strengthen the bottom latches, while increasing X-axis direction force capacity, and increasing operation speed.



Reach V_{max} 10 m/s
Reach a_{max} 450m/s²

Dustproof design

Stainless Steel Reinforcement Plate

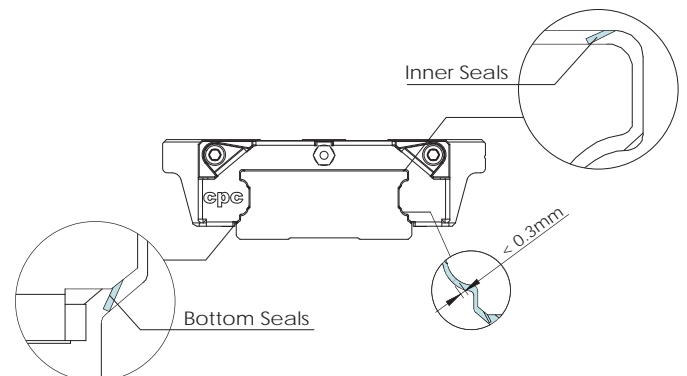
With clearance between rail profile for less than 0.3mm, the place can scrape large items such as iron filings to protect the end seals.

Inner Seals

The inner seals can protect foreign objects from sliding into the rails while maintaining low friction. It can also allow the lubrication oil to be maintained inside the runner block and prolong the re-lubrication interval.

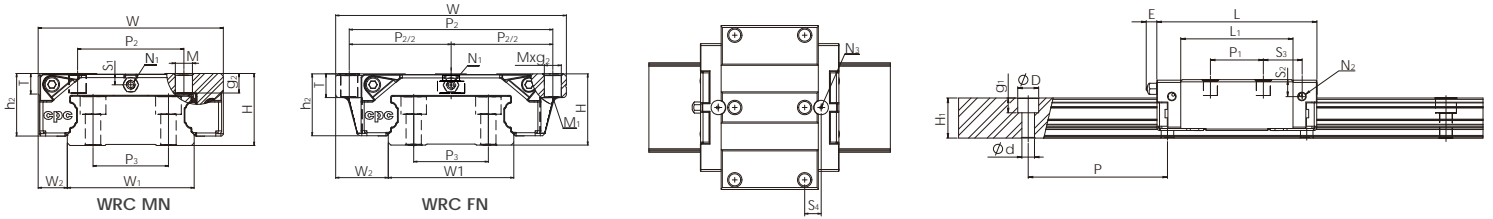
Bottom Seals

The bottom seals can prevent foreign objects from entering the bottom and prevent lubrication from leaking out. With full sealing design, it reduces the amount of oil usage, prolong the re-lubrication interval, and prolong the service life.



WRC Wide Rail Ball Type Linear Guide Series

Dimension Table

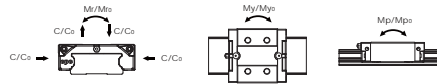


WRC Series

Model Code	Mounting Dimensions		Rail Dimensions (mm)				Block Dimensions (mm)														Load Capacities (kN)				Static Moment (Nm)			Weight				
	H	W ₂	W ₁	H ₁	P	P ₃	D _x d _x g ₁	W	L	L ₁	h ₂	P ₁	P ₂	M _x g ₂	M ₁	T	N ₁	N ₂	N ₃	E	S ₁	S ₂	S ₃	S ₄	C _{iso}		C ₀	M _{ro}	M _{po}	M _{yo}	Block(g)	Rail(g/m)
																									100km	50km						
WRC 21/15 MN	21	8.5	37	14.4	50	22	7.5x4.5x5.3	54	57.5	40.3	18.3	19	31	M5x5	-	6	M3	M3x3	P3	3.5	3.3	6.05	13.9	11.9	9.9	12.5	17.5	315	105	105	160	3596
WRC 21/15 FN	21	15.5	37	14.4	50	22	7.5x4.5x5.3	68	57.5	40.3	18.3	29	60	M5x5	M4	6	M3	M3x3	P3	3.5	3.3	6.05	8.9	6.9	9.9	12.5	17.5	315	105	105	198	3596
WRC 27/20 MN	27	10	42	18.5	60	24	7.5x4.5x5.3	62	70	52	23.5	32	46	M6x6	-	10	M3	M3x4	P4	3.5	4.5	8	13.2	11.5	17.1	21.5	30	634	230	230	320	5259
WRC 27/20 FN	27	19	42	18.5	60	24	7.5x4.5x5.3	80	70	52	23.5	40	70	M6x9	M4	9	M3	M3x4	P4	3.5	4.5	8	9.2	7.5	17.1	21.5	30	634	230	230	553	5259

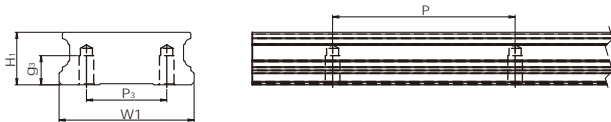
WRC...C Series (Ball chain type)

Model Code	Mounting Dimensions		Rail Dimensions (mm)				Block Dimensions (mm)														Load Capacities (kN)				Static Moment (Nm)			Weight				
	H	W ₂	W ₁	H ₁	P	P ₃	D _x d _x g ₁	W	L	L ₁	h ₂	P ₁	P ₂	M _x g ₂	M ₁	T	N ₁	N ₂	N ₃	E	S ₁	S ₂	S ₃	S ₄	C _{iso}		C ₀	M _{ro}	M _{po}	M _{yo}	Block(g)	Rail(g/m)
																									100km	50km						
WRC 21/15 MN	21	8.5	37	14.4	50	22	7.5x4.5x5.3	54	57.5	40.3	18.3	19	31	M5x5	-	6	M3	M3x3	P3	3.5	3.3	6.05	13.9	11.9	11.8	14.9	16.2	295	95	95	159	3596
WRC 21/15 FN	21	15.5	37	14.4	50	22	7.5x4.5x5.3	68	57.5	40.3	18.3	29	60	M5x5	M4	6	M3	M3x3	P3	3.5	3.3	6.05	8.9	6.9	11.8	14.9	16.2	295	95	95	197.5	3596
WRC 27/20 MN	27	10	42	18.5	60	24	7.5x4.5x5.3	62	70	52	23.5	32	46	M6x6	-	10	M3	M3x4	P4	3.5	4.5	8	13.2	11.5	22.3	28.1	25.7	535	200	200	318	5259
WRC 27/20 FN	27	19	42	18.5	60	24	7.5x4.5x5.3	80	70	52	23.5	40	70	M6x9	M4	9	M3	M3x4	P4	3.5	4.5	8	9.2	7.5	22.3	28.1	25.7	535	200	200	550	5259



The above rating load capacities and static moment are calculated according to ISO 14728 standard. The rating life for basic dynamic load rating is defined as the total 100km travel distance that 90% of a group of identical linear guides can be operated individually under the same conditions free from any material damage caused by rolling fatigue. When the standard of 50km travel distance is applied, the above basic dynamic load rating C of ISO 14728 should be multiplied by 1.26 for conversion.

WRU Series (Tapped from the bottom)



Model Code	W ₁	H ₁	P	P ₃	M _x g ₃	L _{max}	Rail(g/m)
WRU 21/15	37	14.4	50	22	M4x8	4000	3596
WRU 27/20	42	18.5	60	24	M5x7.5	4000	5259

Ordering information

Model code

WRC	U	21/15	M	N	B	2	C	V1	P	-1480L	-15	-15	II	/J
Customization code														
Number of rails on the same moving axis														
End hole pitch (mm)														
Starting hole pitch (mm)														
Rail length (mm)														
Accuracy grade : UP, SP, P, H, N														
Preload class : VC, V0, V1, V2														
C: with ball chain														
Block quantity														
Seal type : B: Low friction														
Block length : N: standard														
Block width : M: standard F: flanged														
Block type : 21/15, 27/20														
U : rail (Tapped from the bottom)														
Product type : WRC: Wide Rail Ball Type Linear Guide Series														

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