

# Linear Guides for Heavy Load (Dust Resistant)

With Double Seals & Metal Scrapers / Normal Clearance

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ⓘ Blocks and rails are not sold as separate items. Normal Clearance Type has guaranteed radial clearances and accuracies as sets of blocks and rails.

RoHS10

	Type		MX (Lubrication Units)	L Dimension	Number of Blocks	Material Hardness
	Double-Sealed	With Metal Scrapers				
Standard	SXRD	SXRK	Blank: None -MX: Provided	Selectable	1	Carbon Steel 58 HRC min.
	SX2RD	SX2RK			2	
	SXRD L	SXRKL			1	
	SX2RD L	SX2RKL			2	
Wide Block	SXWD	SXWK		Selectable	1	
	SX2WD	SX2WK			2	
	SXWDL	SXWKL			1	
	SX2WDL	SX2WKL			2	

Heat Resistant Temperature: -20~80°C

Dimension diagram of blocks with MX (Lubrication units)

Standard (Bottom)

Wide Block (Bottom)

ⓘ For L Dimension Configurable Type, G dimensions differ from those shown in the table below. For details, see P.608.

## Precautions for Use

- ⓘ Blocks are equipped with retainers (wire) to prevent balls from derailing. For blocks, see P.602.
- ⓘ Radial clearances and accuracies are not guaranteed if the blocks and rails are interchanged from the original set combinations.
- ⓘ Straight grooves are provided on datum planes. Be sure to match the datum lines when using.
- ⓘ Rails cannot be connected end to end.
- ⓘ Running parallelism is the value measured after the rail is mounted. (It is not the value measured before the rails are fastened with screws.)

## Others

- Filled with Lithium soap based grease (Alvania Grease S2 by Showa Shell Sekiyu K.K).
- Grease Fittings: Straight Type for H24 and Angled Type for H28 and H33.
- Grease Fitting is screw-in type, and thus, can be repositioned.
- For Operating Life Calculation P.604.

	Part Number		H	L	Block Dimensions											Guide Rail Dimensions									
	Type	MX			W	L <sub>1</sub>		B	C	S x ℓ	L <sub>2</sub>	K	T	Cb	Grease Fittings			H <sub>1</sub>	W <sub>1</sub>	W <sub>2</sub>	Ca	Counterbored Holes		F	G
						Mounting Holes	E								T <sub>1</sub>	d <sub>1</sub> x d <sub>2</sub> x h									
Standard	1 Block SXRD SXRK SXRDL SXRKL	Blank: None	24	160 (220)~1480	34	62 (58.6)	71.6 (68.2)	26	26	M4 x 7	41	20	7	0.85	M5 x P0.8	6	5	12.5	15	9.5	0.5	3.5 x 6 x 4.5	60	20	
			28	220~1960	42	73.4 (69)	83 (78.6)	32	32	M5 x 8	47.6	22.5	7.5	1	M6 x P0.75	13	6	15.5	20	11	0.6	6 x 9.5 x 8.5	60	20	
	2 Blocks SX2RD SX2RK SX2RD L SX2RKL	Blank: None	33	220 (280)~1960	48	90 (85.4)	99.6 (95)	35	35	M6 x 9	61	26.5	8	1	M6 x P0.75	13	6.8	18	23	12.5	0.8	7 x 11 x 9	60	20	
			28	220~1960	52	62 (58.6)	71.6 (68.2)	41	26	4.5	41	20	7	0.5	M5 x P0.8	6	5	12.5	15	18.5	0.5	3.5 x 6 x 4.5	60	20	
	Wide Block	-MX: Provided	28	220~1960	59	73.4 (69)	83 (78.6)	49	32	5.5	47.6	22.5	9	1	M6 x P0.75	13	6	15.5	20	19.5	0.6	6 x 9.5 x 8.5	60	20	
			33	220 (280)~1960	73	90 (85.4)	99.6 (95)	60	35	7	61	26.5	10	1	M6 x P0.75	13	6.8	18	23	25	0.8	7 x 11 x 9	60	20	

ⓘ L Dimension: Dimensions in ( ) are for the minimum rail length of the 2-Block Type. ⓘ L<sub>1</sub> Dimension: Dimensions in ( ) are for Metal Scraper Type.

**Part Number Example**

Part Number	L
SXRD28	- 880
SXRD-MX28	- 880 (With Lubrication Units)
SXRD28L	- 880 (L Type Greased)
SXRD28G	- 880 (G Type Greased)

Alternative grease types available.

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With Double Seals & Metal Scrapers / Normal Clearance, *continued*

**Part Number Alterations**

SXRD33 - 880 - TMC

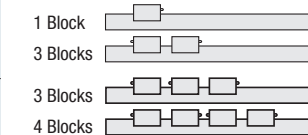
Alterations	Code	Specifications												
TMS: Tapped Hole Machining + 2 Stopper Plates TMC: Tapped Hole Machining Only	TMS TMC	Adds tapped holes on both rail ends to avoid block falling off.  M3 x P0.5 Depth 5 Tapped Hole Stopper Plates Details P.685.												
Rail Ends Cut	Left End Cut LLC Right End Cut RLC	Cuts rail ends. Ordering Code: LLC <table border="1"> <thead> <tr> <th>H</th> <th>L Cut</th> <th>N</th> </tr> </thead> <tbody> <tr> <td>24</td> <td>10</td> <td>10</td> </tr> <tr> <td>28</td> <td></td> <td></td> </tr> <tr> <td>33</td> <td></td> <td></td> </tr> </tbody> </table> Rail is cut with the product ID facing out (datum on other side).	H	L Cut	N	24	10	10	28			33		
H	L Cut	N												
24	10	10												
28														
33														
Parallel Use of 2 Rails	WC	Pair variation of Height H between 2 rails is set within 20 μm. Two rails are shipped as a pair. ⓘ Must be ordered in multiples of 2. ⓘ Not applicable to High Grade Type. ⓘ Not applicable to low temperature chrome plated products.												
3-Block Specifications	B3	Add 2 Blocks to 1-block product to ship as 3-block separate item. Selection Example: SXRD24-400-B3												
4-Block Specifications	B4	Add 3 Blocks to 1-block product to ship as 4-block separate item. Selection Example: SXRD24-00-B4												

## Selectable Shortest Rail Length

H	B3 (3-Block)	B4 (4-Block)
24	340	400
28	400	460
33	400	520

## Position of Grease Fitting

(Reference plane on the front side)



## Preload & Accuracy Standards

Normal Clearance Type

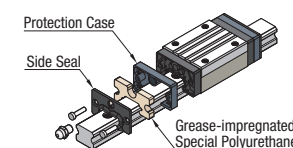
Radial Clearance (μm)	
H24	-4~+2
H28	-5~+2
H33	-6~+3

Dimension Precision (μm)		Standard Grade
Height H Tolerance		±100
Height H Pair Variation		20
Width W <sub>2</sub> Tolerance		±100
Pair Variation of Width W <sub>2</sub>	H24, 28	20
	H33	30
Running Parallelism of Plane C against Plane A		Refer to P.602
Running Parallelism of Plane D against Plane B		

H	Basic Load Rating		Allowable Static Moment		Mass				
	C (Dynamic) kN	C <sub>0</sub> (Static) kN	M <sub>A</sub> , M <sub>B</sub> N·m	M <sub>C</sub> N·m	Block kg				Guide Rails kg/m
					Double-Sealed		W/Metal Scrapers		
					Standard	Wide	Standard	Wide	
24	8.6	14.2	69	98	0.21	0.26	0.21	0.26	1.5
28	12.5	21.3	155	232	0.32	0.37	0.32	0.37	2.4
33	20.2	34.5	275	393	0.48	0.63	0.49	0.64	3.4

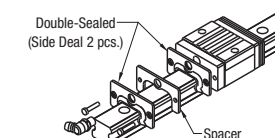


## Lubrication Units MX



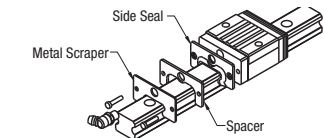
- Blocks with Lubrication Units MX provide long term maintenance-free operation. Reduces maintenance cost. Most suitable where the design does not allow access for additional lubrication. For details, refer to P.599.

## Double-Sealed



- The double seal scheme with two layers of side seals enhances the sealing effect and prevents intrusion of foreign substances into the block.
- Can be used where dust and machining chips exist.
- ⓘ Sliding resistance of Double-Sealed Type is higher than that of Standard Type.

## With Metal Scrapers



- Larger foreign substances adhered to the rail can be removed by attaching metal scrapers on the external side of the side seals.
- Can be used in areas with high temperature dusts such as weld spatter.