

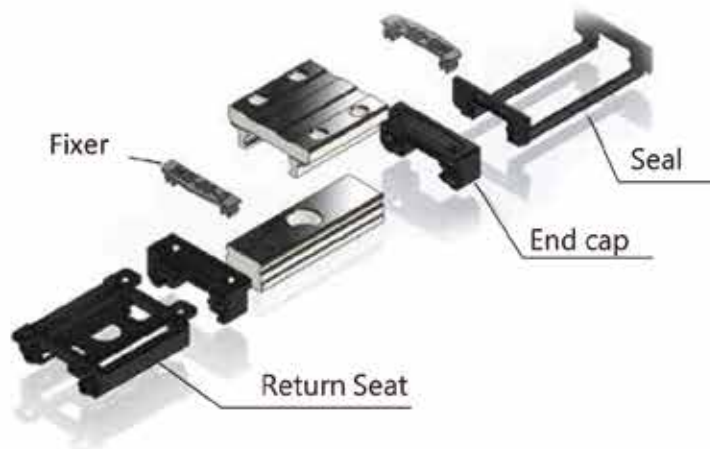
Miniature Linear Guide

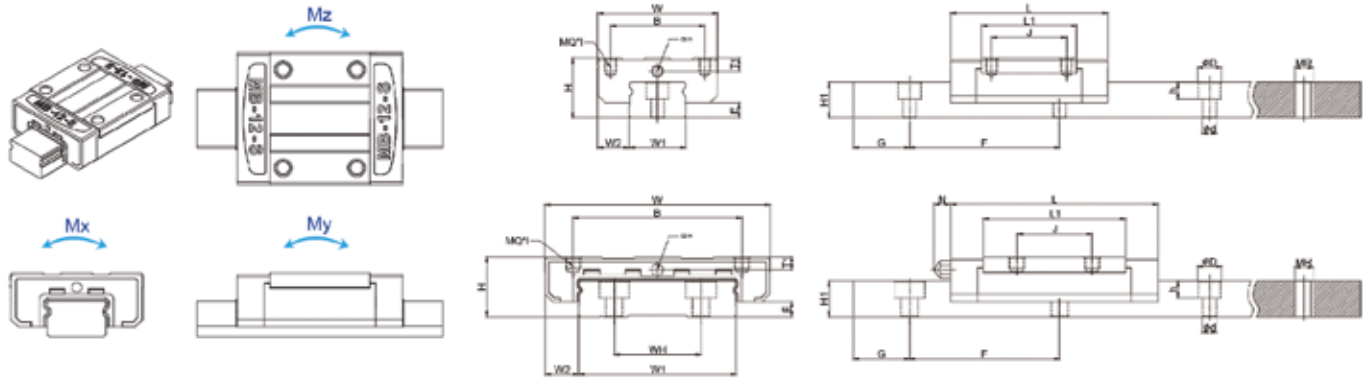
NTN/STAF MB Series / MPH Series

- ▶ Interchangeable to other brands
- ▶ Cage optimizes lubrication
- ▶ Ensuring high-accuracy design
- ▶ Built-in dust sealing



MB Series





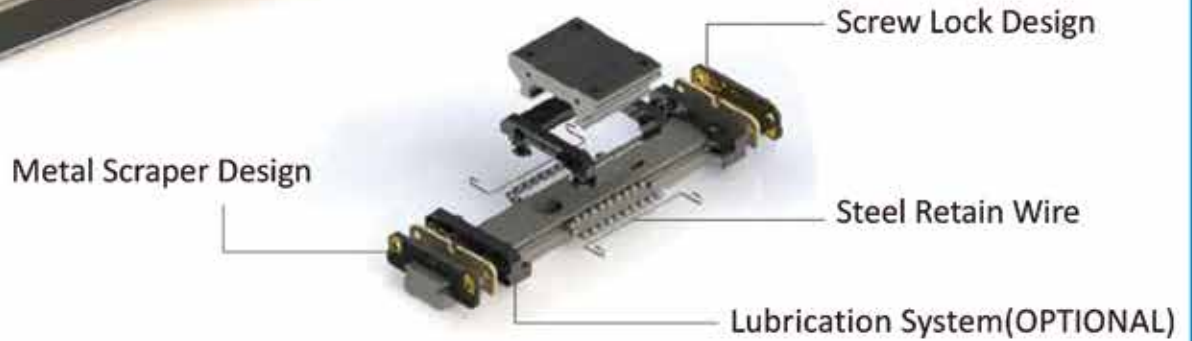
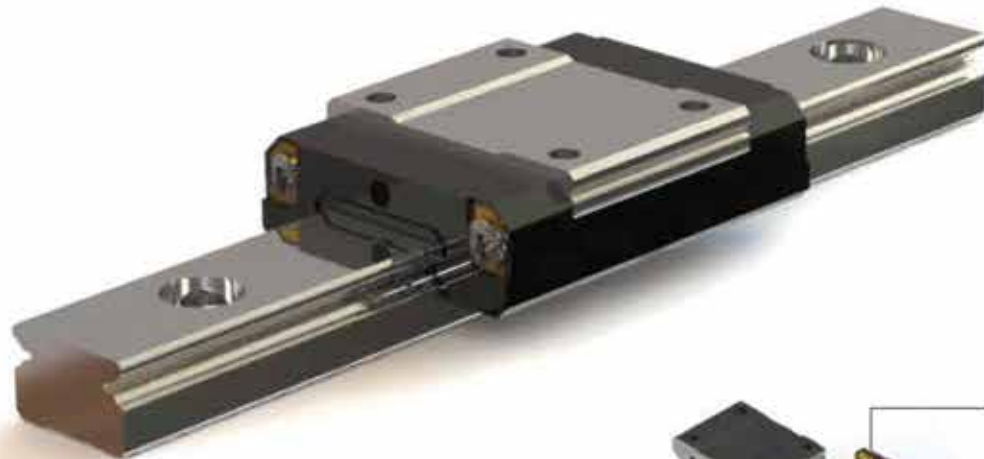
MB SERIES >>> MBX Non Cage type

Model	Assembly - mm				Block - mm								Rail - mm										Rating load - kN			Static moment - N·m			Weight	
	H	W	W2	E	L	B	J	MQ	I	L1	Oil-H	T1	N	W1	H1	F	d	D	h	WH	G	MR	Lmax	C	C0	Mx	My	Mz	Block kg	Rail kg/m
MBX09SN	10	20	5.5	2.2	30.8	15	10	M3	2.5	19.5	Ø1.5	2.4	-	9	6.05	20	3.5	6	3.3	-	7.5	M4	900	2.01	2.26	10.35	8.34	8.34	0.014	0.39
MBX09SL	10	20	5.5	2.2	40.5	15	16	M3	2.5	29.2	Ø1.5	2.4	-	9	6.05	20	3.5	6	3.3	-	7.5	M4	900	2.75	3.24	14.71	16.67	16.67	0.020	0.39
MBX12SN	13	27	7.5	2	34	20	15	M3	3.2	20.3	Ø2	3	-	12	7.25	25	3.5	6	4.25	-	10	M4	900	3.29	3.43	22.48	11.67	11.67	0.029	0.63
MBX12SL	13	27	7.5	2	47	20	20	M3	3.2	33.3	Ø2	3	-	12	7.25	25	3.5	6	4.25	-	10	M4	900	4.41	5.15	33.34	27.46	27.46	0.047	0.63
MBX15SN	16	32	8.5	4	42	25	20	M3	3.5	25.3	M3	3.5	5	15	9.5	40	3.5	6	4.5	-	15	M4	900	5.44	5.59	39.23	25.50	25.50	0.047	1.05
MBX15SL	16	32	8.5	4	59.8	25	25	M3	3.5	43.1	M3	3.5	5	15	9.5	40	3.5	6	4.5	-	15	M4	900	7.16	7.85	54.92	53.94	53.94	0.078	1.05
MBX09WN	12	30	6	3.4	39	21	12	M3	2.5	26.7	Ø1.5	2.3	-	18	7.5	30	3.5	6	4.5	-	10	M4	900	3.19	3.24	30.60	14.71	14.71	0.030	0.98
MBX09WL	12	30	6	3.4	51	23	24	M3	2.5	38.7	Ø1.5	2.3	-	18	7.5	30	3.5	6	4.5	-	10	M4	900	4.27	4.22	40.21	26.97	26.97	0.042	0.98
MBX12WN	14	40	8	3.8	44.5	28	15	M3	3.5	30.5	Ø2	3	-	24	8.7	40	4.5	8	4.5	-	15	M5	900	5.34	5.20	64.73	25.69	25.69	0.052	1.53
MBX12WL	14	40	8	3.8	59.1	28	28	M3	3.5	45.1	Ø2	3	-	24	8.7	40	4.5	8	4.5	-	15	M5	900	7.01	6.91	86.30	47.56	47.56	0.076	1.53
MBX15WN	16	60	9	4	55.5	45	20	M4	4.3	38.1	M3	3.5	5	42	9.5	40	4.5	8	4.5	23	15	M5	900	8.92	8.38	171.62	50.02	50.02	0.111	2.97
MBX15WL	16	60	9	4	74.7	45	35	M4	4.3	57.3	M3	3.5	5	42	9.5	40	4.5	8	4.5	23	15	M5	900	11.18	10.79	220.66	95.62	95.62	0.165	2.97

MB SERIES >>> MBC Cage type

Model	Assembly - mm				Block - mm								Rail - mm										Rating load - kN			Static moment - N·m			Weight	
	H	W	W2	E	L	B	J	MQ	I	L1	Oil-H	T1	N	W1	H1	F	d	D	h	WH	G	MR	Lmax	C	C0	Mx	My	Mz	Block kg	Rail kg/m
MBC09SN	10	20	5.5	2.2	30.8	15	10	M3	2.5	19.5	Ø1.5	2.4	-	9	6.05	20	3.5	6	3.3	-	7.5	M4	900	2.65	2.26	10.35	8.34	8.34	0.014	0.39
MBC09SL	10	20	5.5	2.2	40.5	15	16	M3	2.5	29.2	Ø1.5	2.4	-	9	6.05	20	3.5	6	3.3	-	7.5	M4	900	3.43	3.24	14.71	16.67	16.67	0.020	0.39
MBC12SN	13	27	7.5	2	34	20	15	M3	3.2	20.3	Ø2	3	-	12	7.25	25	3.5	6	4.25	-	10	M4	900	3.92	3.43	22.48	11.67	11.67	0.029	0.63
MBC12SL	13	27	7.5	2	47	20	20	M3	3.2	33.3	Ø2	3	-	12	7.25	25	3.5	6	4.25	-	10	M4	900	5.59	5.15	33.34	27.46	27.46	0.047	0.63
MBC15SN	16	32	8.5	4	42	25	20	M3	3.5	25.3	M3	3.5	5	15	9.5	40	3.5	6	4.5	-	15	M4	900	6.52	5.59	39.23	25.50	25.50	0.047	1.05
MBC15SL	16	32	8.5	4	59.8	25	25	M3	3.5	43.1	M3	3.5	5	15	9.5	40	3.5	6	4.5	-	15	M4	900	8.83	7.85	54.92	53.94	53.94	0.078	1.05
MBC09WN	12	30	6	3.4	39	21	12	M3	2.8	26.7	Ø1.5	2.3	-	18	7.5	30	3.5	6	4.5	-	10	M4	900	3.19	3.24	30.60	14.71	14.71	0.030	0.98
MBC09WL	12	30	6	3.4	51	23	24	M3	2.8	38.7	Ø1.5	2.3	-	18	7.5	30	3.5	6	4.5	-	10	M4	900	4.27	4.22	40.21	26.97	26.97	0.042	0.98
MBC12WN	14	40	8	3.8	44.5	28	15	M3	3.5	30.5	Ø2	3	-	24	8.7	40	4.5	8	4.5	-	15	M5	900	5.34	5.20	64.73	25.69	25.69	0.052	1.53
MBC12WL	14	40	8	3.8	59.1	28	28	M3	3.5	45.1	Ø2	3	-	24	8.7	40	4.5	8	4.5	-	15	M5	900	7.01	6.91	86.30	47.56	47.56	0.076	1.53
MBC15WN	16	60	9	4	55.5	45	20	M4	4.3	38.1	M3	3.5	5	42	9.5	40	4.5	8	4.5	23	15	M5	900	8.92	8.38	171.62	50.02	50.02	0.111	2.97
MBC15WL	16	60	9	4	74.7	45	35	M4	4.3	57.3	M3	3.5	5	42	9.5	40	4.5	8	4.5	23	15	M5	900	11.18	10.79	220.66	95.62	95.62	0.165	2.97

MPH Series



MPH SERIES

Model	Assembly - mm				Block - mm									N
	H	W	W2	E	L	B	J	MQ	I	L1	Oil-H	T1		
# MPHX07SN	8	17	5	1.5	24	12	8	M2	2.3	13	Ø1.1	1.7	-	
MPHX09SN	10	20	5.5	2.3	33.9	15	10	M3	3	20.4	Ø1.3	2.2	-	
MPHX09SL	10	20	5.5	2.3	43.9	15	16	M3	3	30.4	Ø1.3	2.2	-	
MPHX12SN	13	27	7.5	3.05	36.4	20	15	M3	3.5	20.4	Ø2.0	2.9	-	
MPHX12SL	13	27	7.5	3.05	48.8	20	20	M3	3.5	32.9	Ø2.0	2.9	-	

Lubrication System unavailable

Accuracy Standards

Unit: mm

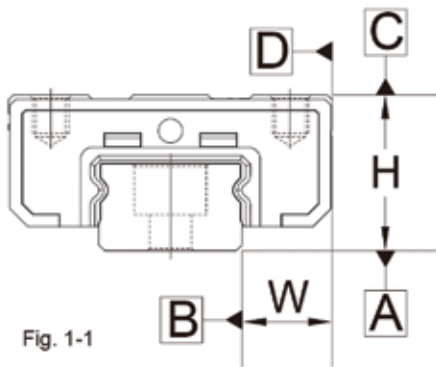


Fig. 1-1

	N Normal	H High
Dimensional tolerance of height (H)	±0.04	±0.02
Dimensional tolerance of width (W)	±0.04	±0.025
Variation of heights (ΔH)	0.03	0.015
Variation of widths (ΔW)	0.03	0.02
Running Parallelism of Block surface C with respect to surface A	ΔC Refer to Fig. 1-1, 1-2	
Running Parallelism of Block surface D with respect to surface B	ΔD Refer to Fig. 1-1, 1-2	

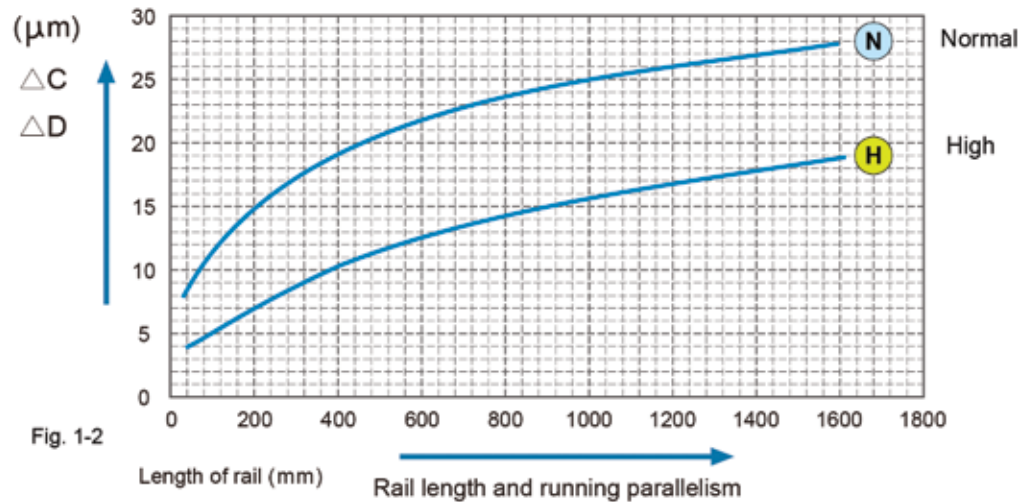
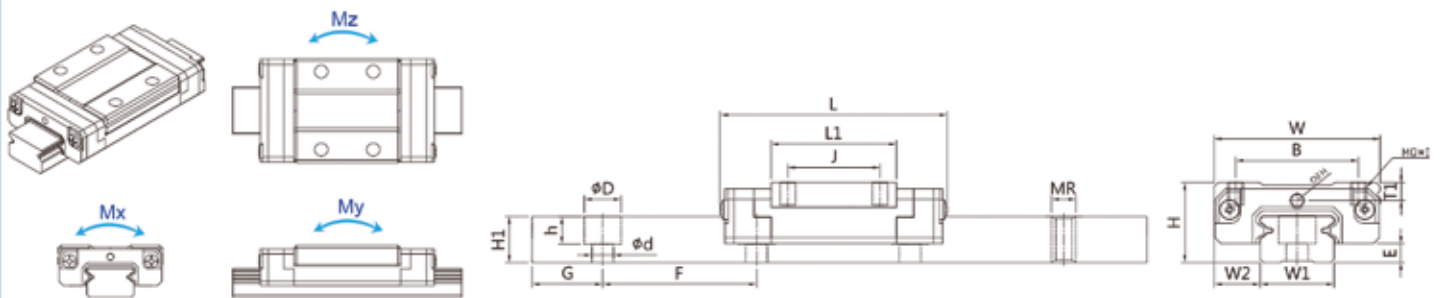


Fig. 1-2



Rail - mm										Rating load - kN		Static moment - N·m			Weight	
W1	H1	F	d	D	h	WH	G	MR	L max	C	C0	M _x	M _y	M _z	Block - kg	Rail - kg/m
7	4.7	15	2.4	4.5	2.4	-	5	M3	450	1.02	1.26	4.97	3.05	3.65	0.009	0.25
9	5.5	20	3.5	6	3.3	-	7.5	M4	900	1.93	3.42	12.87	7.04	7.04	0.019	0.3
9	5.5	20	3.5	6	3.3	-	7.5	M4	900	2.67	5.47	20.02	13.64	13.64	0.027	0.3
12	7.5	25	3.5	6	4.3	-	10	M4	900	2.87	4.80	22.58	13.55	13.55	0.033	0.60
12	7.5	25	3.5	6	4.3	-	10	M4	900	3.92	7.40	38.39	33.20	33.20	0.05	0.60

Miniature Linear Guide

Model Number Coding

MBC D 12 S N - 2 - UA - L 500 - H - Z0 - II C

Slide Type:

MBX: non-cage
MBC: cage
MPH

Material:

D: stainless steel

Specification:

07 09 12 15

Rail Type:

S : Standard rail W : Wide rail

Carriage Type:

N : Standard length L : Extended length

Number of slides

UA:Lubrication System(Only MPH)

Rail type:

L : standard C : bolt up from bottom

Rail length

Precision :

N : normal H : high

Preload type :

Z0 : zero preload Z1 : light preload

Two rails in parallel

Surface Treatment:(Only N)

— :	N : Nickel Plating
C : Hexavalent Chromium Coating	B : Black Oxide
D : Trivalent Chromium Coating	K : Black Chromium
R : Chromium Fluoride Coating	P : Phosphate Coating



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