



BALL SCREW & LINEAR WAY Catalogue



IKO

STAF
STABILIZED TRANSMISSION AS FORWARDING®


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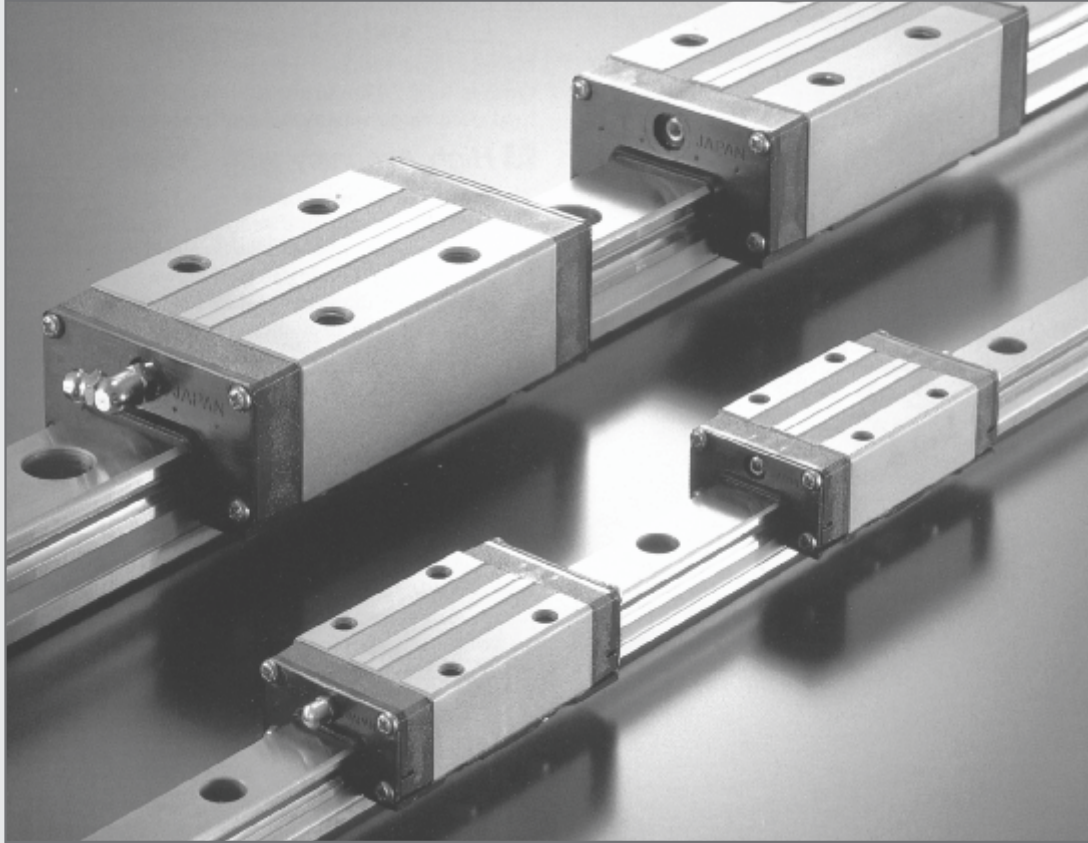


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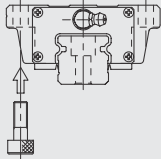


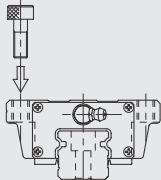

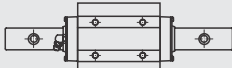
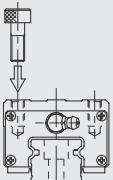
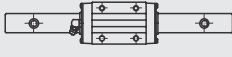

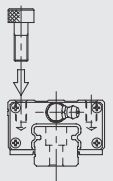

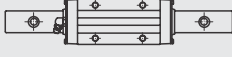


IKO



C-LUBE LINEAR WAY

C-LUBE LINEAR WAY MH

SHAPE	LENGTH OF SLIDE	MODEL
 Flange type, mounting from bottom :	 Standard	MH
	 High rigidity long	MHG
 Flange type, mounting from top	 Standard	MHT
	 High rigidity long	MHTG
 Block type, mounting from top	 Standard	MHD
	 High rigidity long	MHDG
 Compact block type, mounting from top	 Standard	MHS
	 High rigidity long	MHSG

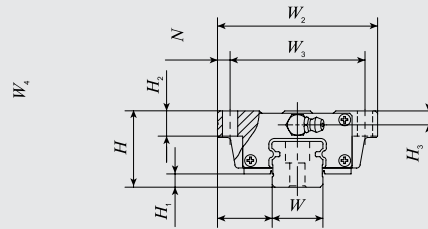
IKO C-lube Linear Way MH features the largest load ratings and rigidity among all ball types and incorporating the C-Lube as a components part for lubrication in the slide unit to achieve maintenance free operations for a long period of time.

FEATURES:

- Long term maintenance free
Man-hours for troublesome lubrication control can be reduced
- Interchangeability
The track rails and slide units can be handled separately where the best type and size can be selected
- Light weight and compact
The C-lube is incorporated into the slide unit of the High Rigidity Linear Way H series.
- Smooth and light motion
C-Lube is not in contact with the rail, thus no friction is caused
- Flange type and block type
4 kinds are available: 2 flange types and 2 narrow block types
- Length of slide unit
The standard and high rigidity type have the same sectional dimensions

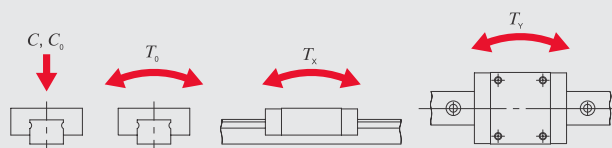
C-LUBE LINEAR WAY MH

Standard = MH
High rigidity long = MHG

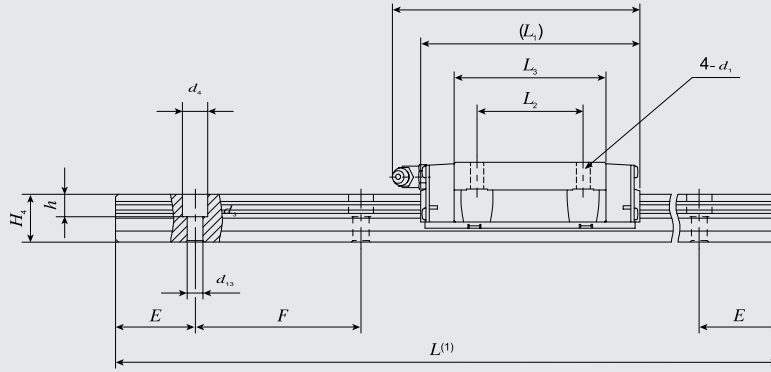


Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)			Dimension of slide unit (mm)									
		Slide Unit (kg)	Track Rail (kg/m)	H	H ₁	N	W ₂	W ₃	W ₄	L ₁	L ₂	L ₃	L ₄	d ₁ ⁽⁴⁾	H ₂	H ₃
MH15	*	0.22	1.47	24	4.5	16	47	38	4.5	66	30	44.2	69	4.5	7	4.5
MH20	*	0.47	2.56	30	5	21.5	63	53	5	83	40	56	95	6	10	5.5
MHG20	*	0.69								112		84.8	124			
MH25	*	0.69	3.50	36	6.5	23.5	70	57	6.5	95	45	63.9	106	7	10	6.5
MHG25	*	0.91								118		86.6	129			
MH30	*	1.28	4.82	42	7	31	90	72	9	113	52	80.6	124	9	10	8
MHG30	*	1.69								139		106.6	150			
MH35	*	1.79	6.85	48	8	33	100	82	9	123	62	86.2	135	9	13	10
MHG35	*	2.35								151		114	163			
MH45	*	3.17	10.7	60	10	37.5	120	100	10	147	80	103.4	158	11	15	13
MHG45	*	4.34								190		146.6	201			

- Note
- (1) Track rail lengths L
 - (2) Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - (3) The directions of basic dynamic load rating (C), basic static load rating (C₀) and static moment rating (T₀, T_x and T_y) are shown in the sketches below. The upper values in the T_x and T_y column apply to one slide unit, and the lower values apply to two units in close contact.



C-LUBE LINEAR WAY MH



	Dimension of track rail (mm)							Recomm ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) N	Basic ⁽³⁾ static load rating (Co) N	Static moment rating (³)			Model Number
	W	H4	d3	d4	h	E	F				To N.m	Tx N.m	Ty N.m	
	15	15	4.5	8	6	30	60	M 4 x 16	11 600	13 400	112	95.6 556	95.6 556	MH15
	20	18	6	9.5	8.5	30	60	M 5 x 18	18 100	21 100	232	195 1090	195 1090	MH20
									24 100	31 700	349	421 2140	421 2140	MHG20
	23	22	7	11	9	30	60	M 6 x 22	25 200	28 800	362	309 1690	309 1690	MH25
									30 800	38 300	483	533 2740	533 2740	MHG25
	28	25	9	14	12	40	80	M 8 x 28	35 400	40 700	623	536 2820	536 2820	MH30
									42 700	53 200	814	894 4460	894 4460	MHG30
	34	28	9	14	12	40	80	M 8 x 28	48 700	53 700	823	631 3480	579 3190	MH35
									59 500	71 600	1100	1090 5570	1000 5110	MHG35
	45	34	14	20	17	52.5	100	M 12 x 35	74 600	80 200	1610	1150 6190	1060 5690	MH45
									95 200	114 000	2 280	2240 11100	2050 10200	MHG45

Example of identification number for assembled set

Model code Size Part code Material code Preload symbol Class symbol Interchangeable code Supplemental code

MH G 20 C2 R480 T1 P S2 /D

Series	Interchangeable code	Special specification
MH Flange type, mounting from bottom	S2 Interchangeable specification	A, D, E, F, I, J, L, LF, MA, MN, N, PS, T, V, W, Z
Length of slide unit	No symbol Non interchangeable specification	
No symbol Standard		
G High rigidity long		
Size	Preload amount	Accuracy class
15, 20, 25, 30, 35, 45	To Clearance	H High
Number of slide unit (two slide units)	No symbol Standard	P Precision
Length of track rail (480mm)	T1 Light preload	SP Super precision
	T2 Medium preload	
	T3 Heavy preload	
	Material	
	No symbol High carbon steel	
	SL Stainless steel	

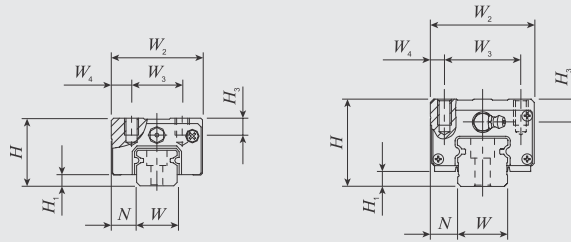
In case ordering track rail only, model code is changed as shown below.

track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

1N = 0.102 kgf = 0.2248 lbs
1mm = 0.03937 inch

C-LUBE LINEAR WAY MHD

Short = MHDC
 Standard = MHD
 High rigidity long = MHDG

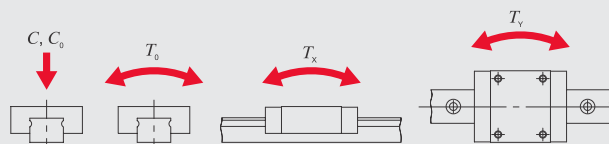


MHD (C,G) 8...SL
 MHD (C,G) 10...SL
 MHD (C,G) 12...SL
 MHD 12

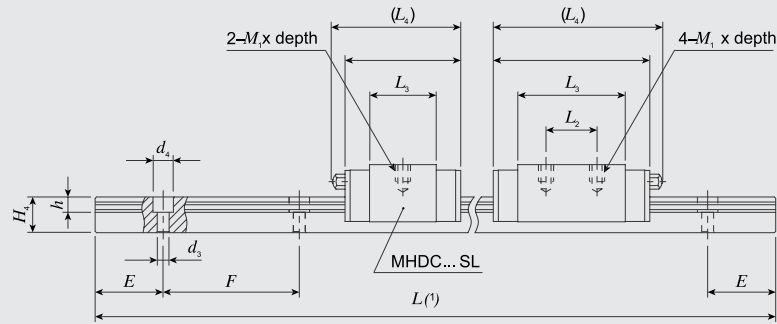
Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)			Dimension of slide unit (mm)									M1xdepth	H3
		Slide Unit (kg)	Track Rail (kg/m)	H	H1	N	W2	W3	W4	L1	L2	L3	L4				
MHDC 8...SL	*	0.008	0.32	11	2.1	4	16	10	3	18	-	9.0	-	M2 x 2.5	3		
MHD 8...SL	*	0.013								24	10	15.3					
MHDG 8...SL	*	0.018								30.5	21.7						
MHDC 10...SL	*	0.018	0.47	13	2.4	5	20	13	3.5	24	-	13.4	-	M2.6 x 3	3.5		
MHD 10...SL	*	0.026								32	12	21.4					
MHDG10...SL	*	0.035								40	29.4						
MHDC12...SL	*	0.057	0.86	20	3.2	7.5	27	15	6	34	-	19.6	38	M4 x 5	5		
MHD 12	*	0.089								46	15	31.6	50				
MHDG12...SL	*									58	43.6	62					
MHD 15	*	0.23	1.47	28	4.5	9.5	34	26	4	66	26	44.2	69	M4 x10	8.5		
MHD 25	*	0.64	3.50	40	6.5	12.5	48	35	6.5	95	35	63.9	106	M6 x 12	10.5		
MHDG 25	*	0.78								118	50	86.6	129				
MHD 30	*	1.12	4.82	45	7	16	60	40	10	113	40	80.6	124	M8 x 16	11		
MHDG 30	*	1.44								139	60	106.6	150				
MHD 35	*	1.74	6.85	55	8	18	70	50	10	123	50	86.2	135	M8 x 16	17		
MHDG 35	*	2.26								151	72	114	163				
MHD 45	*	3.30	10.7	70	10	20.5	86	60	13	147	60	103.4	158	M10 x 20	23		
MHDG 45	*	4.57								190	80	146.6	201				

- Note:
- (1) Track rail lengths L
 - (2) Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - (3) The directions of basic dynamic load rating (C), basic static load rating (Co) and static moment rating (To, Tx and Ty) are shown in the sketches below. The upper values in the Tx and Ty column apply to one slide unit, and the lower values apply to two units in close contact.

Remark: Oil hole is provided for size 8 to 10 models.



C-LUBE LINEAR WAY MHD



	Dimension of track rail (mm)							Recomm. ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) N	Basic ⁽³⁾ static load rating (Co) N	Static moment rating ⁽³⁾			Model Number
	W	H4	d3	d4	h	E	F				To N.m	Tx N.m	Ty N.m	
	8	6	2.4	4.2	2.3	10	20	M2 x 8	1 050	1 270	5.3	2.2 15.5	1.8 13.0	MHDC 8...SL
1 510									2 120	8.8	5.5 32.0	4.7 26.9	MHD 8...SL	
1 910									2 970	12.3	10.4 55.4	8.8 46.4	MHDG 8...SL	
	10	7	3.5	6	3.5	12.5	25	M3 x 8	1 920	2 350	12.2	5.8 37.1	4.8 31.2	MHDC 10...SL
2 640									3 700	19.2	13.3 73.8	11.1 61.9	MHD 10...SL	
3 280									5 050	26.2	23.8 123	20.0 103	MHDG10...SL	
	12	10.5	3.5	6	4.5	20	40	M3 x 12	4 560	5 300	32.8	19.4 117	16.3 98.5	MHDC12...SL
6 260									8 330	51.6	44.7 237	37.5 199	MHD 12	
7 780									11 400	70.4	80.4 399	67.5 335	MHDG12...SL	
	15	15	4.5	8	6	30	60	M4 x 16	11 600	13 400	112	95.6 556	95.6 556	MHD 15
	23	22	7	11	9	30	60	M6 x22	25 200	28 800	362	309 1690	309 1690	MHD 25
30 800									38 300	483	533 2740	533 2740	MHDG 25	
	28	25	9	14	12	40	80	M8 x 28	35 400	40 700	623	536 2820	536 2820	MHD 30
42 700									53 200	814	894 4460	894 4460	MHDG 30	
	34	28	9	14	12	40	80	M8 x 28	48 700	53 700	823	631 3480	579 3190	MHD 35
59 500									71 600	1 100	1090 5570	1000 5110	MHDG 35	
	45	34	14	20	17	52.5	105	M12 x 35	74 600	80 200	1 610	1150 6190	1060 5690	MHD 45
95 200									114 000	2 280	2240 11100	2050 10200	MHDG 45	

Example of identification number for assembled set

Model code Size Part code Material code Preload symbol Class symbol Interchangeable code Supplemental code

MHD G 20 C2 R480 T1 P S2 /D

Series	MH Flange type, mounting from bottom
Length of slide unit	C Short No symbol Standard G High rigidity long
Size	8,10,12,15,25,30,35,45
Number of slide unit (two slide units)	2
Length of track rail (480mm)	480
Material	No symbol High carbon steel SL Stainless steel
Preload amount	To Clearance No symbol Standard T1 Light preload T2 Medium preload T3 Heavy preload
Interchangeable code	S2 Interchangeable specification No symbol Non interchangeable specification
Special specification	A, D, E, F, I, J, L, LF, MA, MN, N, PS, T, V, W, Z
Accuracy class	H High P Precision SP Super precision

In case ordering track rail only, model code is changed as shown below.

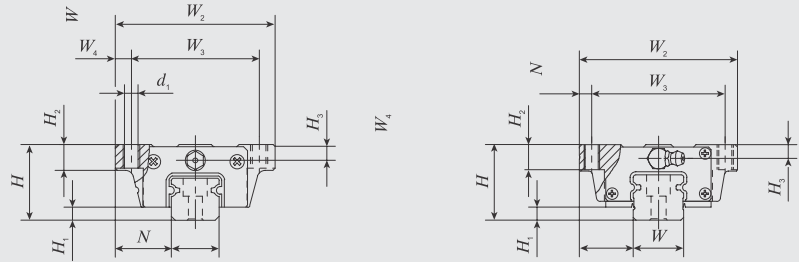
track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

1N = 0.102 kgf = 0.2248 lbs
1mm = 0.03937 inch

C-LUBE LINEAR WAY MHT

Standard = MHT
High rigidity long = MHTG

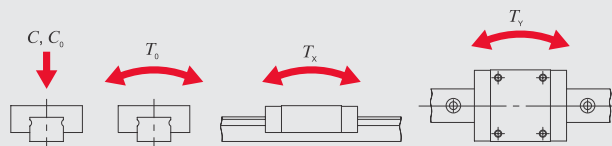
MHT 8...SL
MHT 10...SL
MHT 12...SL



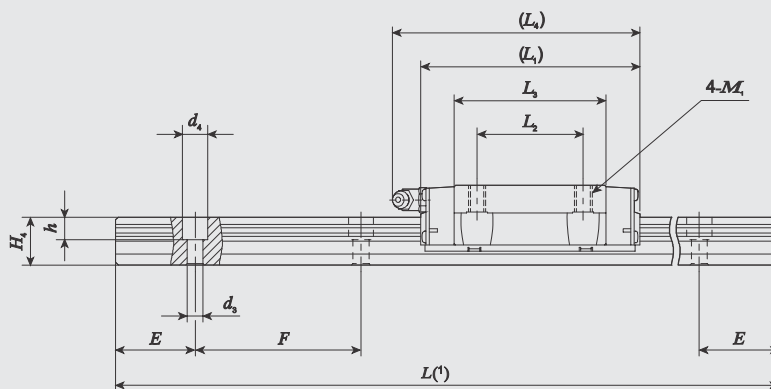
Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)			Dimension of slide unit (mm)										
		Slide Unit (kg)	Track Rail (kg/m)	H	H1	N	W2	W3	W4	L1	L2	L3	L4	d1 ⁽⁴⁾	M1	H2	H3
MHT 8...SL	*	0.015	0.32	10	2.1	8	24	19	2.5	24	10	15.3	-	1.9	M2.3	3.5	2
MHT 10...SL	*	0.031	0.47	12	2.4	10	30	24	3	32	12	21.4	-	2.6	M3	4.5	2.5
MHT 12	*	0.108	0.86	19	3.2	14	40	32	4	46	15	31.6	50	3.4	M4	6	4
MHT 12...SL	*																
MHT 15	*	0.22	1.47	24	4.5	16	47	38	4.5	66	30	44.2	69	-	M5	7	4.5
MHT 20	*	0.47	2.56	30	5	21.5	63	53	5	83	40	56	95	-	M6	10	5.5
MHTG 20	*	0.69								112		84.8	124				
MHT 25	*	0.69	3.50	36	6.5	23.5	70	57	6.5	95	45	63.9	106	-	M8	10	6.5
MHTG 25	*	0.91								118		86.6	129				
MHT 30	*	1.28	4.82	42	7	31	90	72	9	113	52	80.6	124	-	M10	10	8
MHTG 30	*	1.69								139		106.6	150				
MHT 35	*	1.79	6.85	48	8	33	100	82	9	123	62	86.2	135	-	M10	13	10
MHTG 35	*	2.35								151		114	163				
MHT 45	*	3.17	10.7	60	10	37.5	120	100	10	147	80	103.4	158	-	M12	15	13
MHTG 45	*	4.34								190		146.6	201				

- Note
- (1) Track rail lengths L
 - (2) Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - (3) The directions of basic dynamic load rating (C), basic static load rating (Co) and static moment rating (To, Tx and Ty) are shown in the sketches below. The upper values in the Tx and Ty column apply to one slide unit, and the lower values apply to two units in close contact.
 - (4) MHT8...SL, MHT10...SL, MHT12 and MHT12...cSL can be mounted also from bottom direction.

Remark: Oil hole is provided for size 8 and 10 models.



C-LUBE LINEAR WAY MHT



	Dimension of track rail (mm)							Recomm ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) N	Basic ⁽³⁾ static load rating (Co) N	Static moment rating (³)			Model Number
	W	H4	d3	d4	h	E	F				To N.m	Tx N.m	Ty N.m	
	8	6	2.4	4.2	2.3	10	20	M2 X 8	1 510	2 120	8.8	5.5 32.0	4.7 26.9	MHT 8...SL
	10	7	3.5	6	3.5	12.5	25	M3 X 8	2 640	3 700	19.2	13.3 73.8	11.1 61.9	MHT 10...SL
	12	10.5	3.5	6	4.5	20	40	M3 X 12	6 260	8 330	51.6	44.7 237	37.5	MHT 12
													199	MHT 12...SL
	15	15	4.5	8	6	30	60	M4 X 16	11 600	13 400	112	95.6 556	95.6 556	MHT 15
	20	18	6	9.5	8.5	30	60	M5 X 18	18 100	21 100	232	195 1090	195 1090	MHT 20
									24 100	31 700	349	421 2140	421 2140	MHTG 20
	23	22	7	11	9	30	60	M6 X 22	25 200	28 800	362	309 1690	309 1690	MHT 25
									30 800	38 300	483	533 2740	533 2740	MHTG 30
	28	25	9	14	12	40	80	M8 X 28	35 400	40 700	623	536 2820	536 2820	MHT 30
									42 700	53 200	814	894 4460	894 4460	MHTG 30
	34	28	9	14	12	40	80	M8 X 28	48 700	53 700	823	631 3480	579 3190	MHT 35
									59 500	71 600	1 100	1090 5570	1000 5110	MHTG 35
	45	34	14	20	17	52.5	105	M12 X 35	74 600	80 200	1 610	1150 6190	1060 5690	MHT 45
									95 200	114 000	2 280	2240 11100	2050 10200	MHTG 45

Example of identification number for assembled set

Model code	Size	Part code	Material code	Preload symbol	Class symbol	Interchangeable code	Supplemental code
MHT G	20	C2	R480	T ₁	P	S2	/D

Series

MH	Flange type, mounting from bottom
----	-----------------------------------

Length of slide unit

No symbol	Standard
G	High rigidity long

Size

8,10,12,15,20,25,30,35,45

Number of slide unit (two slide units)

Length of track rail (480mm)

Material

No symbol	High carbon steel
SL	Stainless steel

Interchangeable code

S2	Interchangeable specification
No symbol	Non interchangeable specification

Special specification

A, D, E, F, J, J, L, LF, MA, MN, N, PS, T, V, W, Z
--

Preload amount

To	Clearance
No symbol	Standard
T ₁	Light preload
T ₂	Medium preload
T ₃	Heavy preload

Accuracy class

H	High
P	Precision
SP	Super precision

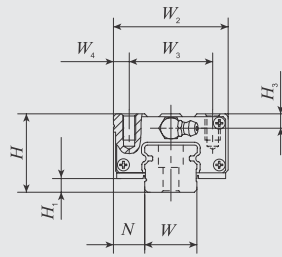
In case ordering track rail only, model code is changed as shown below.

track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

1N = 0.102 kgf = 0.2248 lbs
1mm = 0.03937 inch

C-LUBE LINEAR WAY MHS

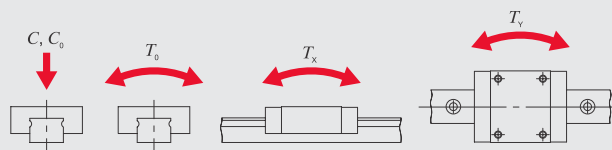
Standard = MHS
High rigidity long = MHSG



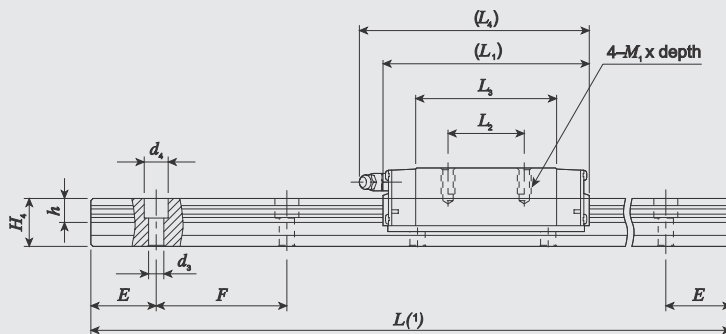
Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)			Dimension of slide unit (mm)								M1xdepth	H3
		Slide Unit (kg)	Track Rail (kg/m)	H	H1	N	W2	W3	W4	L1	L2	L3	L4			
MHS 15	*	0.18	1.47	24	4.5	9.5	34	26	4	66	26	44.2	69	M4 x 8	4.5	
MHS 20	*	0.35	2.56	30	5	12	44	32	6	83	36	56	96	M5 x 10	5.5	
MHSG 20	*	0.52								112	50	84.8	124			
MHS 25	*	0.54	3.50	36	6.5	12.5	48	35	6.5	95	35	63.9	106	M6 x 12	6.5	
MHSG 25	*	0.66								118	50	86.6	129			
MHS 30	*	1.00	4.82	42	7	16	60	40	10	113	40	80.6	124	M8 x 16	8	
MHSG 30	*	1.29								139	60	106.6	150			

- Note:
- (1) Track rail lengths L
 - (2) Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - (3) The directions of basic dynamic load rating (C), basic static load rating (Co) and static moment rating (To, Tx and Ty) are shown in the sketches below. The upper values in the Tx and Ty column apply to one slide unit, and the lower values apply to two units in close contact.

Remark: Oil hole is provided for size 8 to 10 models.



C-LUBE LINEAR WAY MHS



	Dimension of track rail (mm)							Recomm ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) N	Basic ⁽³⁾ static load rating (C ₀) N	Static moment rating ⁽³⁾			Model Number
	W	H ₄	d ₃	d ₄	h	E	F				T ₀ N.m	T _X N.m	T _Y N.m	
	15	15	4.5	8	6	30	60	M4 x 16	11 600	13 400	112	95.6 556	95.6 556	MHS 15
	20	18	6	9.5	8.5	30	60	M5 x 18	18 100	21 100	232	195 1090	195 1090	MHS 20
									24 100	31 700	349	421 2140	421 2140	MHSG 20
	23	22	7	11	9	30	60	M6 x 22	25 200	28 800	362	309 1690	309 1690	MHS 25
									30 800	38 300	483	533 2740	533 2740	MHSG 25
	28	25	9	14	12	40	80	M8 x 28	35 400	40 700	623	536 2820	536 2820	MHS 30
									42 700	53 200	814	894 4460	894 4460	MHSG 30

Example of identification number for assembled set

Model code	Size	Part code	Material code	Preload symbol	Class symbol	Interchangeable code	Supplemental code	
MHS	G	30	C2	R480	T₁	P	S2	/D

Series

MHL Flange type, mounting from bottom

Length of slide unit

No symbol Standard

G High rigidity long

Size

15,20,25,30

Number of slide unit (two slide units)

Length of track rail (480mm)

Material

No symbol High carbon steel

SL Stainless steel

Preload amount

T₀ Clearance

No symbol Standard

T₁ Light preload

T₂ Medium preload

T₃ Heavy preload

Interchangeable code

S2 Interchangeable specification

No symbol Non interchangeable specification

Special specification

A, D, E, F, I, J, L, LF, MA, MN, N, PS, T, V, W, Z

Accuracy class

H High

P Precision

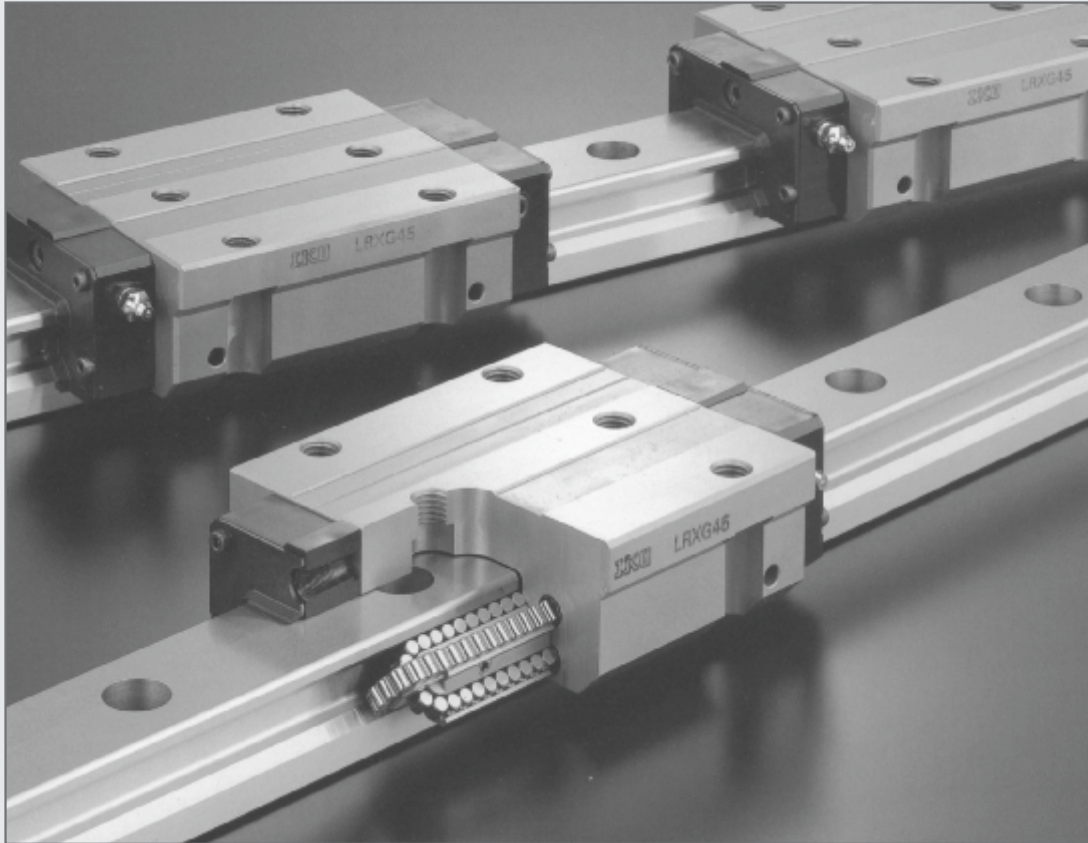
SP Super precision

In case ordering track rail only, model code is changed as shown below.

track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

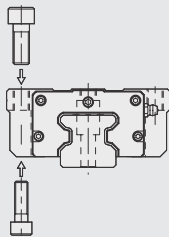
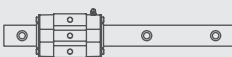
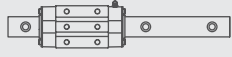
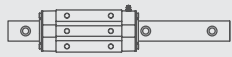
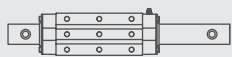
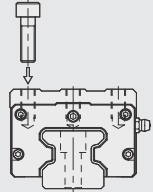
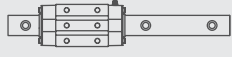
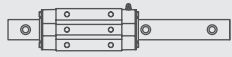
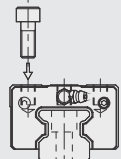
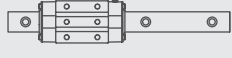
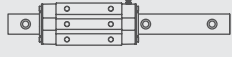
1N = 0.102 kgf = 0.2248 lbs
1mm = 0.03937 inch

IKO



**C-LUBE LINEAR WAY
SUPER MX**

C-LUBE LINEAR WAY SUPER MX

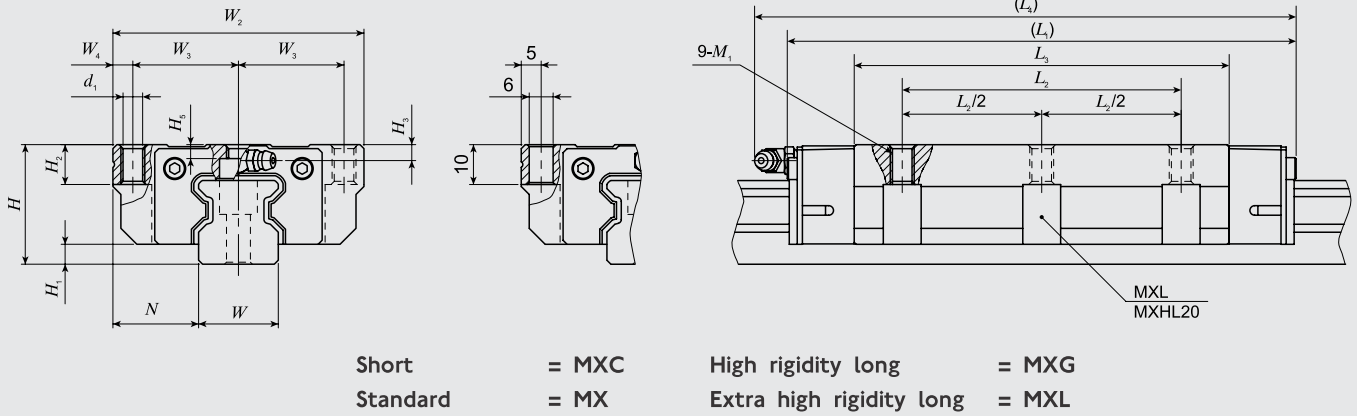
SHAPE	LENGTH OF SLIDE	MODEL
 <p>Flange type, mounting from bottom/top</p>	 Short	MXC
	 Standard	MX
	 High rigidity long	MXG
	 Extra high rigidity long	MXL
 <p>Block type, mounting from top</p>	 Standard	MHD
	 High rigidity long	MHDG
 <p>Compact block type, mounting from top</p>	 Standard	MHS
	 High rigidity long	MHSG

IKO C-lube Linear Way Super MX is a high performance roller type linear motion bearing typically used in machine tools, semiconductor manufacturing and liquid crystal manufacturing equipments and is suitable for applications with vibration and shocks. Maintenance free for 20,000km or year minimises the amount of lubricant required and contributes to the global environment protection.

FEATURES:

- Super high rigidity
 - Cylindrical rollers give smaller elastic deformation under load as compared with steel balls
- Accurate positioning
 - Roller type has superior frictional characteristics and gives lower frictional resistance under load
- Excellent vibration damping characteristics
 - Smaller deformation value under repeated fluctuating load
- Maintenance free for saving-resources
 - The capillary lubrication body continuously supplies lubricant for long period of time even after original grease inside is completely exhausted
- Interchangeability among types of slides
 - Slide units with different sectional shapes and lengths can be mounted on the same track rails freely

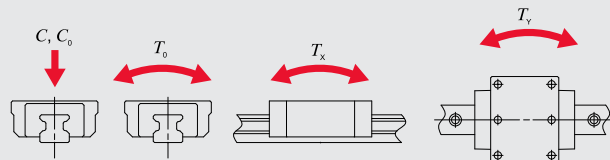
C-LUBE LINEAR WAY SUPER MX



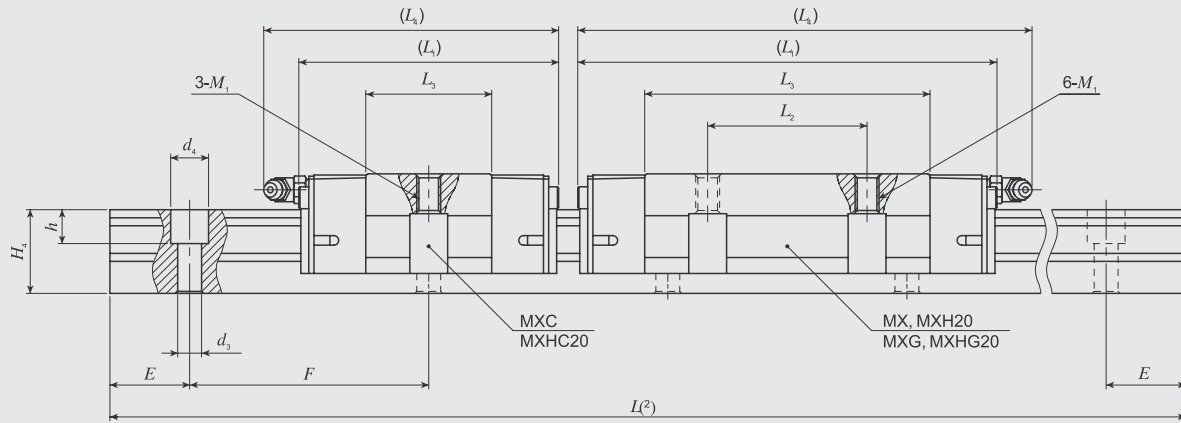
Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)			Dimension of slide unit (mm)											
		Slide Unit (kg)	Track Rail (kg/m)	H	H ₁	N	W ₂	W ₃	W ₄	L ₁	L ₂	L ₃	L ₄	d ₁	M ₃	H ₂	H ₃	H ₅
MXC 15	*	0.13	1.65	24	4	16	47	19	4.5	52	-	24	55	4.4	M5	7	3.5	3
MX 15	*	0.20								68	30	40	71					
MXG 15	*	0.28								84	56	87						
MXC 20(1)	*	0.29	2.73	30	5	21.5	63	26.5	5	66	-	31.6	74	(1)	M6 ⁽¹⁾	10	4	3.5
MX 20(1)	*	0.44								86	40	51.6	94					
MXG 20(1)	*	0.61								106	71.6	114						
MXL 20(1)		0.80								128	70	94.1	137					
MXC 25	*	0.44	3.59	36	6	23.5	70	28.5	6.5	74	-	36	83	7	M8	10	5	5
MX 25	*	0.67								98	45	60	107					
MXG 25	*	0.84								113	75	122						
MXL 25		1.08								137	70	99	146					
MXC 30	*	0.78	5.01	42	6.5	31	90	36	9	85	-	42.4	95	8.5	M10	10	6.5	5.5
MX 30	*	1.20								113	52	70.4	123					
MXG 30	*	1.58								134	91.4	144						
MXL 30		2.03								162	80	119.4	172					

- Note:
- (1) MXC20, MX20, MXG20 and MXL20 can be mounted from the top only. For mounting from the bottom, use MXHC20, MXH20, MXHG20 and MXHL20 which have the same dimensions as above model
 - Track rail lengths L
 - Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - The directions of basic dynamic load rating (C), basic static load rating (C₀) and static moment rating (T₀, T_x and T_y) are shown in the sketches below. The upper values in the T_x and T_y column apply to one slide unit, and the lower values apply to two units in close contact.

Remark: A grease nipple mounting threaded hole is provided on each plate respectively



C-LUBE LINEAR WAY SUPER MX



	Dimension of track rail (mm)							Recomm ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) N	Basic ⁽³⁾ static load rating (Co) N	Static moment rating ⁽³⁾			Model Number
	W	H4	d3	d4	h	E	F				To N.m	Tx N.m	Ty N.m	
15	16.5	4.5	8	6	30	60	M4 x 16	7 730	12 000	113	50.6 457	50.6 457	MXC 15	
								11 500	20 000	188	136 942	136 942	MX 15	
								14 900	28 000	263	262 1590	262 1590	MXG 15	
20	21	6	9.5	8.5	30	60	M5 x 20	16 100	26 400	341	150 1260	150 1260	MXC 20(i)	
								23 400	42 700	550	379 2520	379 2520	MX 20(i)	
								30 100	58 900	760	713 4200	713 4200	MXG 20(i)	
								37 200	77 200	996	1210 6560	1210 6560	MXL 20(i)	
23	24.5	7	11	9	30	60	M6 x 25	21 600	33 800	500	213 1810	213 1810	MXC 25	
								32 100	56 300	833	573 3800	573 3800	MX 25	
								38 200	70 300	1 040	885 5380	885 5380	MXG 25	
								47 400	92 800	1 370	1530 8480	1530 8480	MXL 25	
28	28	9	14	12	40	80	M8 x 28	29 200	44 600	808	329 2740	329 2740	MXC 30	
								43 400	74 400	1 350	883 5780	883 5780	MX 30	
								53 200	96 700	1 750	1470 8740	1470 8740	MXG 30	
								65 600	126 000	2 290	2500 13600	2500 13600	MXL 30	

Example of identification number for assembled set

Model code: **MX** Size: **G 25** Part code: **C2 R840** Material code: **T1** Preload symbol: **P** Class symbol: **S2** Interchangeable code: **/D**

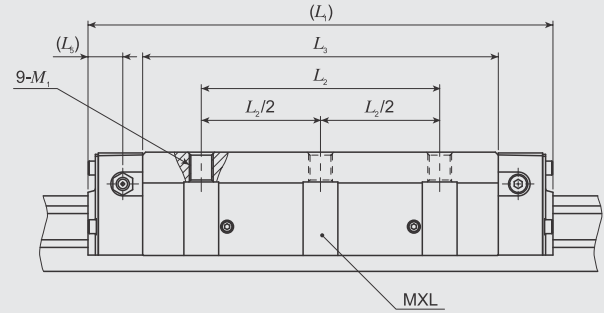
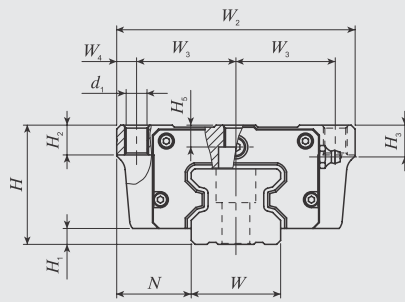
Series MX Flange type, mounting from bottom	Length of slide unit C Short No symbol Standard G High rigidity long L Ex-high rigid. long	Size 15,20,25,30	Number of slide unit (two slide units)	Length of track rail (840mm)	Material No symbol High carbon steel SL Stainless steel	Preload amount T0 Clearance No symbol Standard T1 Light preload T2 Medium preload T3 Heavy preload	Interchangeable code S2 Interchangeable specification No symbol Non interchangeable specification	Special specification A, D, E, F, GE, HP, L, J, L, LF, MA, MN, N, RC, T, UR, V, W, Z	Accuracy class H High P Precision SP Super precision UP Ultra precision
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In case ordering track rail only, model code is changed as shown below.
track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

1N = 0.102 kgf = 0.2248 lbs
1mm = 0.03937 inch

C-LUBE LINEAR WAY SUPER MX

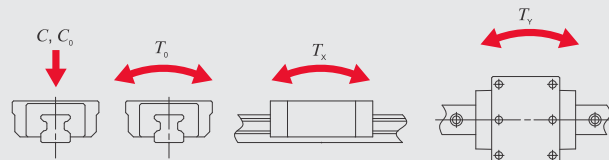
High rigidity
 long = MXG
 Extra high
 rigidity long = MXL
 Short = MXC
 Standard = MX



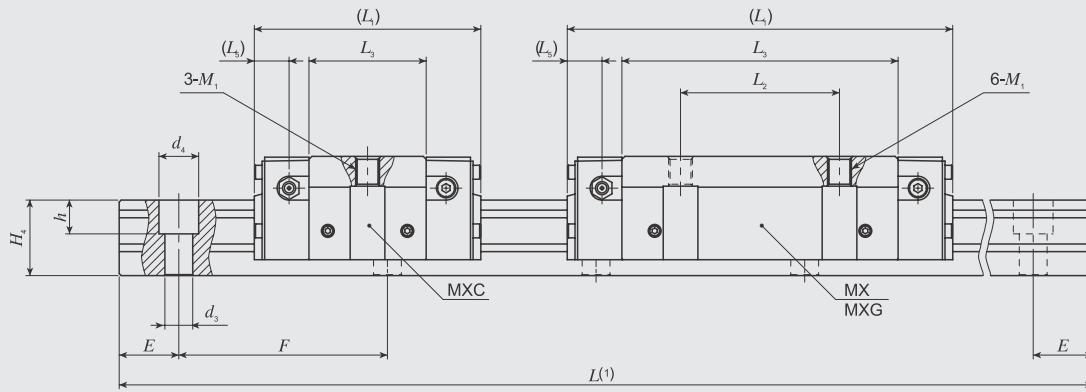
Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)						Dimension of slide unit (mm)								
		Slide Unit (kg)	Track Rail (kg/m)	H	H ₁	N	W ₂	W ₃	W ₄	L ₁	L ₂	L ₃	L ₅	d ₁	M ₁	H ₂	H ₃	H ₅
MXC 35	*	1.13	6.88	48	6.5	33	100	41	9	92	-	46.6	12.7	8.5	M10	13	13	7
MX 35	*	1.76								124	62	78.6						
MXG 35	*	2.41								152		106.6						
MXL 35		3.00								184	100	138.6						
MXC 45	*	2.11	10.8	60	8	37.5	120	50	10	114	-	59	17.5	10.5	M12	15	16	11
MX 45	*	3.26								154	80	99						
MXG 45	*	4.60								194		139						
MXL 45		5.66								234	120	179						
MXC 55	*	3.49	14.1	70	9	43.5	140	58	12	136	-	72	20	12.5	M14	17	16	14
MX 55	*	5.42								184	95	120						
MXG 55	*	7.93								238		174						
MXL 55		10.1								292	150	228						
MXC 65	*	7.18	22.6	90	12	53.5	170	71	14	180	-	95	26.3	14.5	M16	23	18	18.5
MX 65	*	11.5								244	110	159						
MXG 65	*	16.0								308		223						
MXL 65		20.8								380	200	295						

- Note:
- (1) Track rail lengths L
 - (2) Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - (3) The directions of basic dynamic load rating (C), basic static load rating (C₀) and static moment rating (T₀, T_x and T_y) are shown in the sketches below. The upper values in the T_x and T_y column apply to one slide unit, and the lower values apply to two units in close contact.

Remark: (1) Three female threaded holes for grease nipple are prepared on each end plate



C-LUBE LINEAR WAY SUPER MX



Dimension of track rail (mm)								Recomm ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) N	Basic ⁽³⁾ static load rating (Co) N	Static moment rating (³)			Model Number
W	H4	d3	d4	h	E	F	To N.m				Tx N.m	Ty N.m		
34	32	9	14	12	40	80	M8 x 35	39 500	60 000	1 300	506 3950	506 3950	MXC 35	
								58 700	100 000	2 170	1360 8470	1360 8470	MX 35	
								74 200	135 000	2 930	2440 13800	2440 13800	MXG 35	
								90 800	175 000	3 800	4060 21300	4060 21300	MXL 35	
45	38	14	20	17	52.5	105	M12 x 40	64 100	95 600	2 660	1010 7800	1010 7800	MXC 45	
								95 400	159 000	4 430	2700 16800	2700 16800	MX 45	
								124 000	223 000	6 200	5220 29000	5220 29000	MXG 45	
								151 000	287 000	7 980	8560 44400	8560 44400	MXL 45	
53	43	16	23	20	60	120	M14 x 45	99 700	149 000	4 830	1880 14400	1880 14400	MXC 55	
								148 000	248 000	8 040	5040 31100	5040 31100	MX 55	
								198 000	359 000	11 700	10400 57000	10400 57000	MXG 55	
								244 000	470 000	15 300	17700 90700	17700 90700	MXL 55	
63	56	18	26	22	75	150	M16 x 60	174 000	249 000	9 790	4200 32200	4200 32200	MXC 65	
								260 000	415 000	16 300	11300 69300	11300 69300	MX 65	
								337 000	581 000	22 800	21800 120000	21800 120000	MXG 65	
								419 000	768 000	30 200	37600 193000	37600 193000	MXL 65	

Example of identification number for assembled set

Model code Size Part code Material code Preload symbol Class symbol Interchangeable code Supplemental code

MX G 55 C2 R3000 T1 P S2 /D

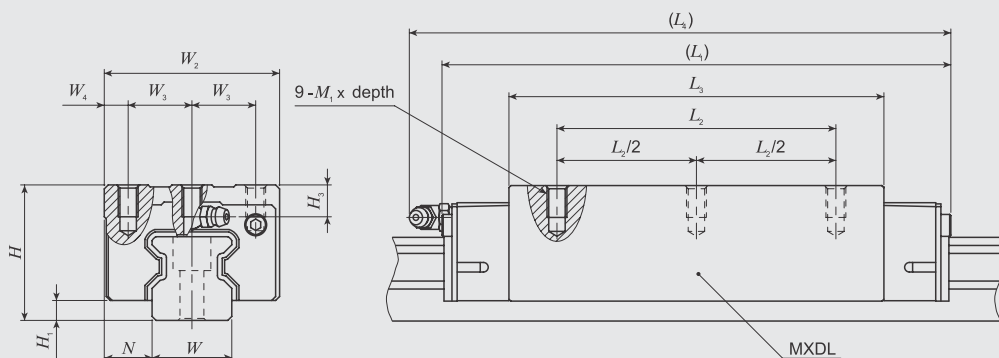
Series	MX Flange type, mounting from bottom
Length of slide unit	C Short No symbol Standard G High rigidity long L Ex-high rigid. long
Size	35, 45, 55, 65
Number of slide unit (two slide units)	
Length of track rail (840mm)	
Material	No symbol High carbon steel SL Stainless steel
Preload amount	To Clearance No symbol Standard T1 Light preload T2 Medium preload T3 Heavy preload
Interchangeable code	S2 Interchangeable specification No symbol Non interchangeable specification
Special specification	A, D, E, F, GE, HP, I, J L, LF, MA, MN, N, RC T, UR, V, W, Z
Accuracy class	H High P Precision SP Super precision UP Ultra precision

In case ordering track rail only, model code is changed as shown below.
 track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

1N = 0.102 kgf = 0.2248 lbs
 1mm = 0.03937 inch

C-LUBE LINEAR WAY SUPER MX

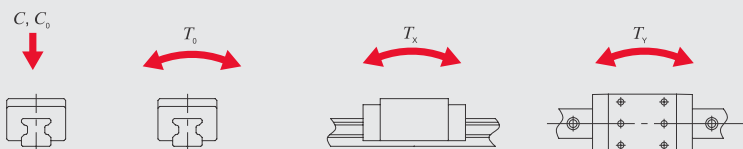
- Short = MXDC
- Standard = MXD
- High rigidity long = MXDG
- Extra high rigidity long = MXDL
- Standard
- Stainless Steel = MXD...SL



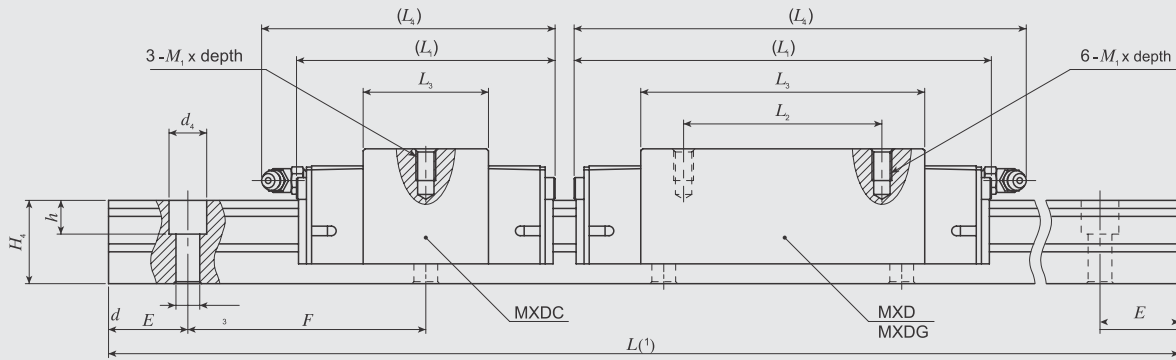
Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)			Dimension of slide unit (mm)									
		Slide Unit (kg)	Track Rail (kg/m)	H	H1	N	W2	W3	W4	L1	L2	L3	L4	M1xdepth	H3	
MXDC 15	*	0.13	1.65	28	4	9.5	34	13	4	52	-	24	55	M4 x 8	7.5	
MXD 15	*	0.19								68	26	40	71			
MXD 15...SL	*									84		56	87			
MXDG 15	*									0.26	84	56	87			
MXDC 20	*	0.25	2.73	34	5	12	44	16	6	66	-	31.6	74	M5 x 8	8	
MXD 20	*	0.38								86	36	51.6	94			
MXD 20...SL	*									106	50	71.6	114			
MXDG 20	*									0.52	128	70	94.1			137
MXDL 20										0.67	128	70	94.1			137
MXDC 25	*	0.36	3.59	40	6	12.5	48	17.5	6.5	74	-	36	83	M6 x 12	9	
MXD 25	*	0.55								98	35	60	107			
MXD 25...SL	*									113	50	75	122			
MXDG 25	*									0.68	137	70	99			146
MXDL 25										0.88	137	70	99			146
MXDC 30	*	0.60	5.01	45	6.5	16	60	20	10	85	-	42.4	95	M8 x 12	9.5	
MXD 30	*	0.92								113	40	70.4	123			
MXD 30...SL	*									134	60	91.4	144			
MXDG 30	*									1.18	162	80	119.4			172
MXDL 30										1.52	162	80	119.4			172

- Note:
- (1) Track rail lengths L
 - (2) Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - (3) The directions of basic dynamic load rating (C), basic static load rating (Co) and static moment rating (To, Tx and Ty) are shown in the sketches below. The upper values in the Tx and Ty column apply to one slide unit, and the lower values apply to two units in close contact.

Remark: The '**' mark indicates that interchangeable specification products are available.
A grease nipple mounting threaded hole is provided on each end plate respectively.



C-LUBE LINEAR WAY SUPER MX



W	Dimension of track rail (mm)						Recomm ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) N	Basic ⁽³⁾ static load rating (Co) N	Static moment rating (³)			Model Number
	H4	d3	d4	h	E	F				To N.m	Tx N.m	Ty N.m	
15	16.5	4.5	8	6	30	60	M4 x 16	7 730	12 000	113	50.6 457	50.6 457	MXDC 15
								11 500	20 000	188	136 942	136 942	MXD 15
								14 900	28 000	263	262 1590	262 1590	MXD 15...SL
								16 100	26 400	341	150 1260	150 1260	MXDG 15
20	21	6	9.5	8.5	30	60	M5 x 20	23 400	42 700	550	379 2520	379 2520	MXDC 20
								30 100	58 900	760	713 4200	713 4200	MXD 20
								37 200	77 200	996	1210 6560	1210 6560	MXD 20...SL
								21 600	33 800	500	213 1810	213 1810	MXDG 20
23	24.5	7	11	9	30	60	M6 x 25	32 100	56 300	833	573 3800	573 3800	MXDL 20
								38 200	70 300	1 040	885 5380	885 5380	MXDC 25
								47 400	92 300	1 370	1530 8480	1530 8480	MXD 25
								29 200	44 600	808	329 2740	329 2740	MXD 25...SL
28	28	9	14	12	60	80	M8 x 28	43 400	74 400	1 350	883 5780	883 5780	MXDG 25
								53 200	96 700	1 750	1470 8740	1470 8740	MXDC 30
								65 600	126 000	2 290	2500 13600	2500 13600	MXD 30
								29 200	44 600	808	329 2740	329 2740	MXD 30...SL

Example of identification number for assembled set

Model code	Size	Part code	Material code	Preload symbol	Class symbol	Interchangeable code	Supplemental code
MXD	G 25	C2 R840		T1	P	S2	/F

Series

MXD	Flange type, mounting from bottom
-----	-----------------------------------

Length of slide unit

C	Short
No symbol	Standard
G	High rigidity long
L	Extra high rigid. long

Size

15,20,25,30

Number of slide unit (two slide units)

Length of track rail (480mm)

Material

No symbol	High carbon steel
SL	Stainless steel

Preload amount

To	Clearance
No symbol	Standard
T1	Light preload
T2	Medium preload
T3	Heavy preload

Interchangeable code

S2	Interchangeable specification
No	Non interchangeable specification

Special specification

A, D, E, F, GE, HP, I, J, L, LF, MA, MN, N, RC, T, UR, V, W, Z
--

Accuracy class

H	High
P	Precision
SP	Super precision
UP	Ultra precision

In case ordering track rail only, model code is changed as shown below.

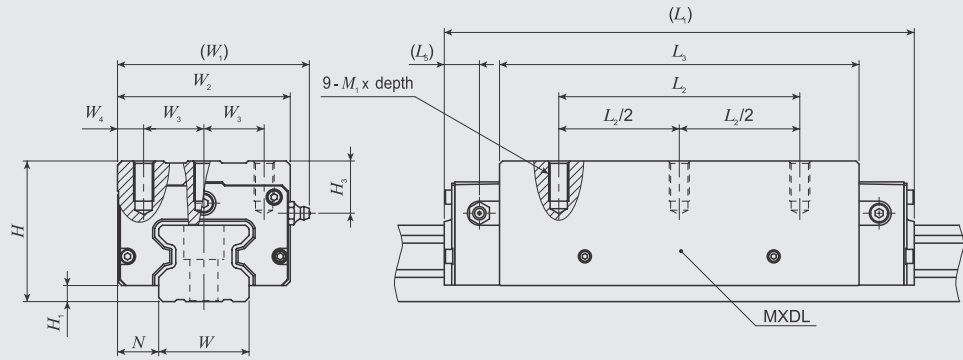
track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

1N = 0.102 kgf = 0.2248 lbs

1mm = 0.03937 inch

C-LUBE LINEAR WAY SUPER MX

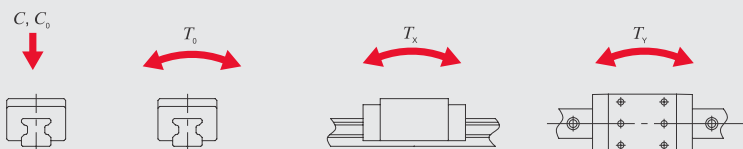
Short = MXDC
 Standard = MXD
 High rigidity long = MXDG
 Extra high rigidity long = MXDL
 standard



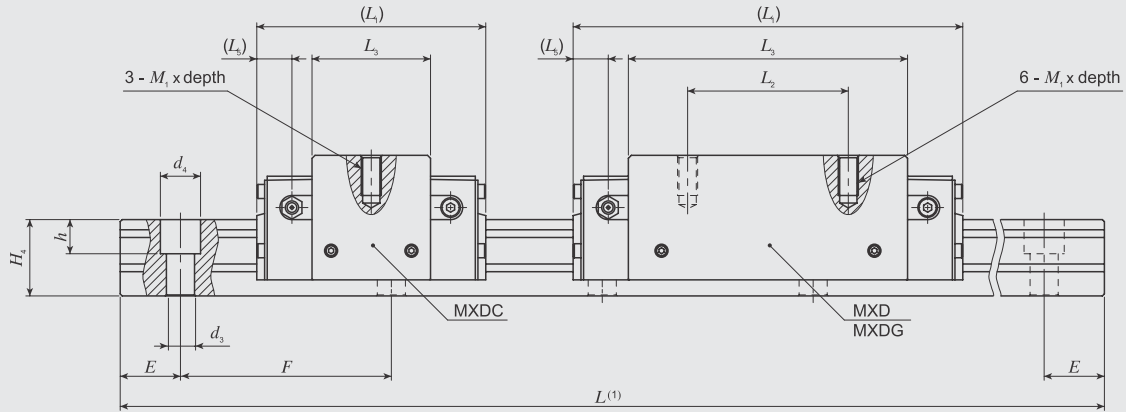
Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)			Dimension of slide unit (mm)									
		Slide Unit (kg)	Track Rail (kg/m)	H	H1	N	W1	W2	W3	W4	L1	L2	L3	L4	M1xdepth	H3
MXDC 35	*	0.97	6.88	55	6.5	18	78	70	25	10	92	-	46.6	12.7	M8 x 16	20
MXD 35	*	1.52									124	50	78.6			
MXDG 35	*	2.02									152	72	106.6			
MXDL 35		2.55									184	100	138.6			
MXDC 45	*	2.01	10.8	70	8	20.5	97	86	30	13	114	-	59	17.5	M10 x 20	26
MXD 45	*	3.13									154	60	99			
MXDG 45	*	4.29									194	80	139			
MXDL 45		5.36									234	120	179			
MXDC 55	*	3.17	14.1	80	9	23.5	111	100	37.5	12.5	136	-	72	20	M12 x 25	26
MXD 55	*	4.97									184	75	120			
MXDG 55	*	7.06									238	95	174			
MXDL 55		9.08									292	150	228			
MXDC 65	*	5.52	22.6	90	12	31.5	136	126	38	25	180	-	95	26.3	M16 x 25	18
MXD 65	*	8.70									244	70	159			
MXDG 65	*	12.1									308	120	223			
MXDL 65		15.5									380	200	295			

- Note:
- (1) Track rail lengths L
 - (2) Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - (3) The directions of basic dynamic load rating (C), basic static load rating (Co) and static moment rating (To, Tx and Ty) are shown in the sketches below. The upper values in the Tx and Ty column apply to one slide unit, and the lower values apply to two units in close contact.

Remark: The '**' mark indicates that interchangeable specification products are available. Three female threaded holes for grease nipple are prepared on each end plate.



C-LUBE LINEAR WAY SUPER MX



	Dimension of track rail (mm)							Recomm ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) n	Basic ⁽³⁾ static load rating (Co) N	Static moment rating (³)			Model Number
	W	H4	d3	d4	h	E	F				To N.m	Tx N.m	Ty N.m	
34	32	9	14	12	40	80	M8 x 35	39 500	60 000	1 300	506 3950	506 3950	MXDC 35	
								58 700	100 000	2 140	1360 8470	1360 8470	MXD 35	
								74 200	135 000	2 930	2440 13800	2440 13800	MXDG 35	
								90 800	175 000	3 800	4060 21300	4060 21300	MXDL 35	
45	38	14	20	17	52.5	105	M12 x 40	64 100	95 600	2 660	1010 7800	1010 7800	MXDC 45	
								95 400	159 000	4 430	2700 16800	2700 16800	MXD 45	
								124 000	223 000	6 200	5220 29000	5220 29000	MXDG 45	
								151 000	287 000	7 980	8560 44400	8560 44400	MXDL 45	
53	43	16	23	20	60	120	M14 x 45	99 700	149 000	4 830	1880 14400	1880 14400	MXDC 55	
								148 000	248 000	8 040	5040 31100	5040 31100	MXD 55	
								198 000	359 000	11 700	10400 57 000	10400 57 000	MXDG 55	
								244 000	470 000	15 300	17700 90700	17700 90700	MXDL 55	
63	56	18	26	22	75	150	M16 x 60	174 000	249 000	9 790	4200 32200	4200 32200	MXDC 65	
								260 000	415 000	16 300	11300 69300	11300 69300	MXD 65	
								337 000	581 000	22 800	21800 120000	21800 120000	MXDG 65	
								419 000	768 000	30 200	37600 193000	37600 193000	MXDL 65	

Example of identification number for assembled set

Model code	Size	Part code	Material code	Preload symbol	Class symbol	Interchangeable code	Supplemental code
MXD	G 55	C2 R840		T1	P	S2	/F
Series	Length of slide unit	Size	Material	Preload amount	Interchangeable code	Special specification	Accuracy class
MXD Flange type, mounting from bottom	C Short No symbol Standard G High rigidity long L Extra high rigid. long	35,45,55,65	No symbol High carbon steel SL Stainless steel	To Clearance No symbol Standard T1 Light preload T2 Medium preload T3 Heavy preload	S2 Interchangeable specification No Non interchangeable specification	A, D, E, F, GE, HP, I, J L, LF, MA, MN, N, RC, T, UR, V, W, Z	H High P Precision SP Super precision UP Ultra precision
	Number of slide unit (two slide units)	Length of track rail (480mm)					

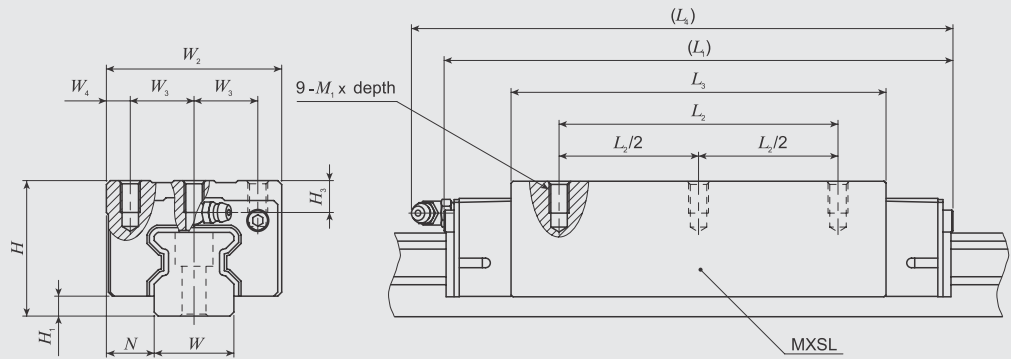
In case ordering track rail only, model code is changed as shown below.

track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

1N = 0.102 kgf = 0.2248 lbs

1mm = 0.03937 inch

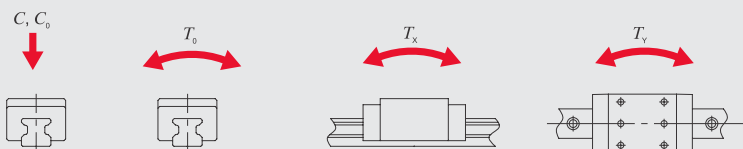
C-LUBE LINEAR WAY SUPER MX



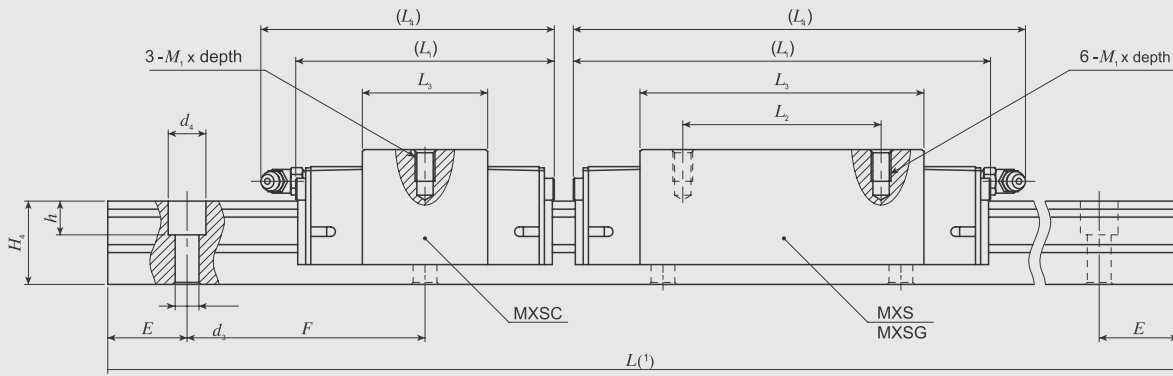
Model Number	Interchange	Mass (Reference)		Dimension of assembly (mm)			Dimension of slide unit (mm)								M1xdepth	H3
		Slide Unit (kg)	Track Rail (kg/m)	H	H1	N	W2	W3	W4	L1	L2	L3	L4			
MXSC 15	*	0.099	1.65	24	4	9.5	34	13	4	52	-	24	55	M4 x 5.5	3.5	
MXS 15	*	0.15								68	26	40	71			
MXSG 15	*	0.21								84	56	87				
MXSC 20	*	0.21	2.73	30	5	12	44	16	6	66	-	31.6	74	M5 x 6.5	4	
MXS 20	*	0.31								86	36	51.6	94			
MXSG 20	*	0.42								106	50	71.6	114			
MXSL 20		0.55								128	70	94.1	137			
MXSC 25	*	0.30	3.59	36	6	12.5	48	17.5	6.5	74	-	36	83	M6 x 9	5	
MXS 25	*	0.47								98	35	60	107			
MXSG 25	*	0.57								113	50	75	122			
MXSL 25		0.74								137	70	99	146			
MXSC 30	*	0.54	5.01	42	6.5	16	60	20	10	85	-	42.4	95	M8 x 11	6.5	
MXS 30	*	0.83								113	40	70.4	123			
MXSG 30	*	1.05								134	60	91.4	144			
MXSL 30		1.37								162	80	119.4	172			

- Note:
- (1) Track rail lengths L
 - (2) Track rail mounting bolts are not appended. Hexagon socket bolts of JIS B 1176 strength division 12.9 or equivalent are recommended.
 - (3) The directions of basic dynamic load rating (C), basic static load rating (Co) and static moment rating (To, Tx and Ty) are shown in the sketches below. The upper values in the Tx and Ty column apply to one slide unit, and the lower values apply to two units in close contact.

Remark: The '**' mark indicates that interchangeable specification products are available.
A grease nipple mounting threaded hole is provided on each end plate respectively.



C-LUBE LINEAR WAY SUPER MX



	Dimension of track rail (mm)							Recomm ⁽²⁾ mounting bolt for track rail (mm)	Basic ⁽³⁾ dynamic load rating (C) N	Basic ⁽³⁾ static load rating (Co) N	Static moment rating ⁽³⁾			Model Number
	W	H4	ds	d4	h	E	F				To N.m	Tx N.m	Ty N.m	
	15	16.5	4.5	8	6	30	60	M4 X 16	7 730	12 000	113	50.6 457	50.6 457	MXSC 15
11 500									20 000	188	136 942	136 942	MXS 15	
14 900									28 000	263	262 1590	262 1590	MXSG 15	
	20	21	6	9.5	8.5	30	60	M5 x 20	16 100	26 400	341	150 1260	150 1260	MXSC 20
23 400									42 700	550	379 2520	379 2520	MXS 20	
30 100									58 900	760	713 4200	713 4200	MXSG 20	
37 200									77 200	996	1210 6560	1210 6560	MXSL 20	
	23	24.5	7	11	9	30	60	M6 x 25	21 600	33 800	500	213 1810	213 1810	MXSC 25
32 100									56 300	833	573 3800	573 3800	MXS 25	
38 200									70 300	1 040	885 5380	885 5380	MXSG 25	
47 400									92 800	1 370	1530 8480	1530 8480	MXSL 25	
	28	28	9	14	12	40	80	M8 x 28	29 200	44 600	808	329 2740	329 2740	MXSC 30
43 400									74 400	1 350	883 5780	883 5780	MXS 30	
53 200									96 700	1 750	1470 8740	1470 8740	MXSG 30	
65 600									126 000	2 290	2500 13600	2500 13600	MXSL 30	

Example of identification number for assembled set

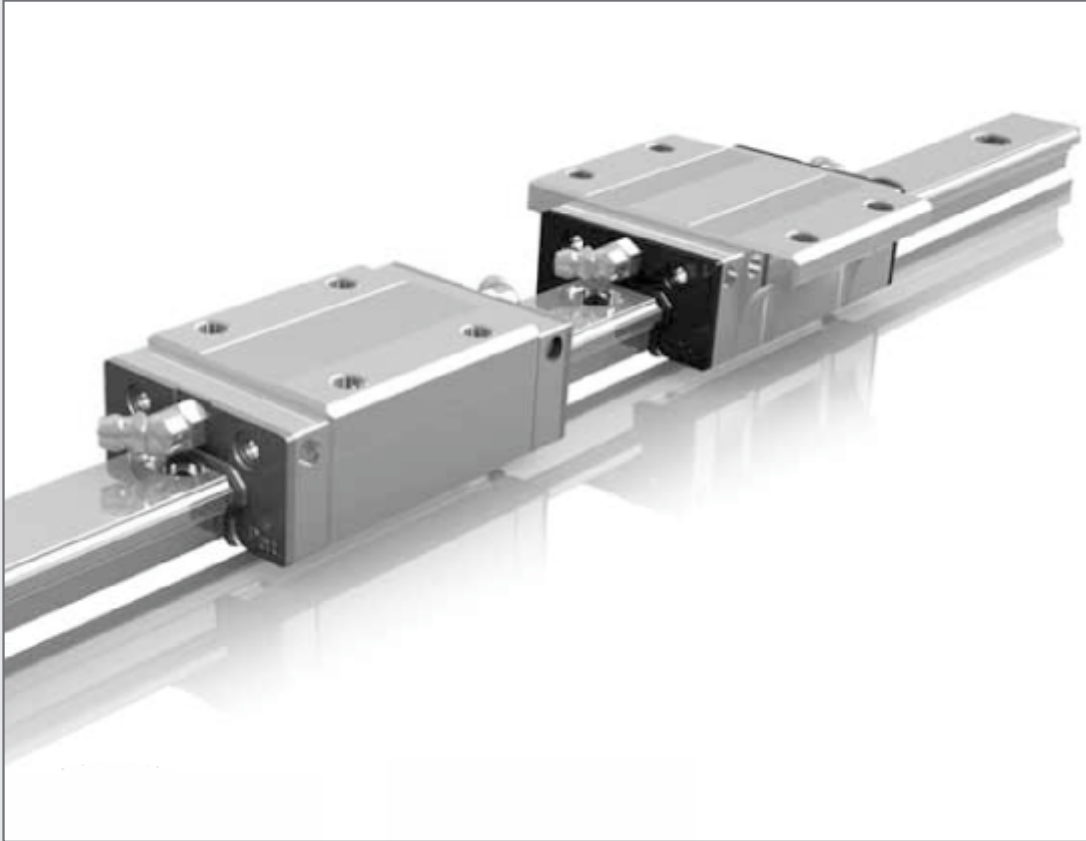
Model code	Size	Part code	Material code	Preload symbol	Class symbol	Interchangeable code	Supplemental code
MXS	G 25	C2 R840		T1	P	S2	/F
Series	Length of slide unit	Size	Material	Preload amount	Interchangeable code	Special specification	Accuracy class
MXD Flange type, mounting from bottom	C Short No symbol Standard G High rigidity long L Extra high rigid. long	15,20,25,30	No symbol High carbon steel SL Stainless steel	To Clearance No symbol Standard T1 Light preload T2 Medium preload T3 Heavy preload	S2 Interchangeable specification No Non interchangeable symbol specification	A, D, E, F, GE, HP, I, J L, LF, MA, MN, N, RC, T, UR, V, W, Z	H High P Precision SP Super precision UP Ultra precision
	Number of slide unit (two slide units)	Length of track rail (480mm)					

In case ordering track rail only, model code is changed as shown below.

track rail of interchangeable MH → Model code LWH (Ex: LWH25R480BPS2)

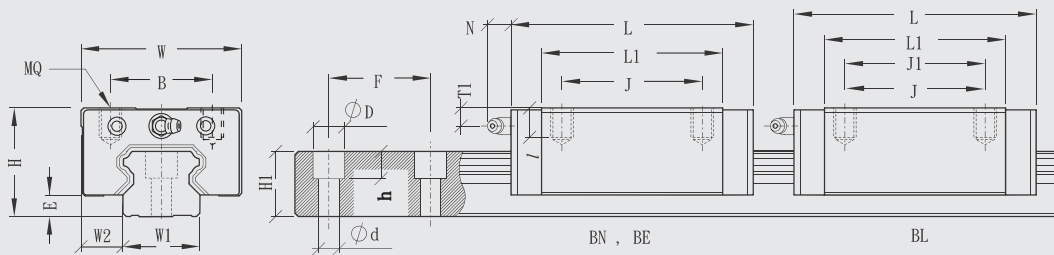
1N = 0.102 kgf = 0.2248 lbs

1mm = 0.03937 inch



STAF LINEAR GUIDE CAGE & NON CAGE TYPES

STAF BGX & BGC SERIES (H-B)



© BL : BGX → J1 ; BGC → J

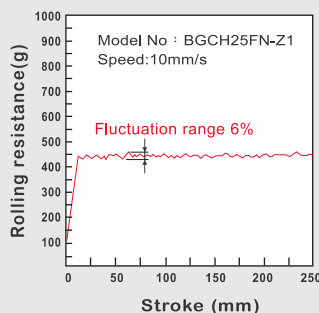
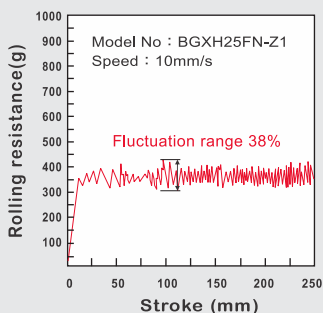
Model	Assembly-mm				Block-mm									Rail-mm						Rating load-kN			Static moment - kN-m			Block kg	Rail kg/m	
	H	W	W2	E	L	B	J	J1	MQ	I	L1	Oil H	T1	N	W1	H1	F	d	D	h	C-BGX	C-BGC	C0	M _x	M _y			M _z
H15BN	28	34	9.5	3.3	58.6	26	26		M4	6.0	40.2	M4X0.7	9.5	(5)	15	13.0	60	4.5	7.5	6.0	9.3	11.5	19.6	0.136	0.117	0.117	0.19	1.28
H20BN	30	44	12.0	4.5	69.3	32	36		M5	6.5	48.5	M6X1	7.1	(15.6)	20	16.3	60	6.0	9.5	8.5	14.3	17.7	30.5	0.285	0.220	0.220	0.31	2.15
H20BL	30	44	12.0	4.5	82.1	32	36	50	M5	6.5	61.3	M6X1	7.1	(15.6)	20	16.3	60	6.0	9.5	8.5	18.6	23.0	39.5	0.369	0.361	0.361	0.36	2.15
H20BE	30	44	12.0	4.5	97.3	32	50		M5	6.5	76.5	M6X1	7.1	(15.6)	20	16.3	60	6.0	9.5	8.5	22.1	27.3	48.9	0.456	0.557	0.557	0.47	2.15
H25BN	40	48	12.5	5.8	79.2	35	35		M6	9.0	57.5	M6X1	14.2	(15.6)	23	19.2	60	7.0	11.0	9.0	20.1	24.8	41.1	0.440	0.352	0.352	0.45	2.88
H25BL	40	48	12.5	5.8	93.9	35	35	50	M6	9.0	72.2	M6X1	14.2	(15.6)	23	19.2	60	7.0	11.0	9.0	25.9	31.9	52.8	0.566	0.568	0.568	0.66	2.88
H25BE	40	48	12.5	5.8	108.6	35	50		M6	9.0	86.9	M6X1	14.2	(15.6)	23	19.2	60	7.0	11.0	9.0	29.2	36.0	63.3	0.679	0.819	0.819	0.80	2.88
H30BN	45	60	16.0	7.0	94.8	40	40		M8	12.0	67.8	M6X1	13	(15.6)	28	22.8	80	9.0	14.0	12.0	29.7	36.7	54.6	0.706	0.551	0.551	0.91	4.45
H30BL	45	60	16.0	7.0	105.0	40	40	60	M8	12.0	78.0	M6X1	13	(15.6)	28	22.8	80	9.0	14.0	12.0	38.5	47.5	70.7	0.915	0.821	0.821	1.04	4.45
H30BE	45	60	16.0	7.0	130.5	40	60		M8	12.0	103.5	M6X1	13	(15.6)	28	22.8	80	9.0	14.0	12.0	42.9	52.9	86.7	1.122	1.336	1.336	1.36	4.45
H35BN	55	70	18.0	7.5	111.5	50	50		M8	12.0	80.5	M6X1	18.5	(15.6)	34	26.0	80	9.0	14.0	12.0	42.4	52.3	81.1	1.282	0.972	0.972	1.50	6.25
H35BL	55	70	18.0	7.5	123.5	50	50	72	M8	12.0	92.5	M6X1	18.5	(15.6)	34	26.0	80	9.0	14.0	12.0	52.9	65.4	101.4	1.602	1.396	1.396	1.80	6.25
H35BE	55	70	18.0	7.5	153.5	50	72		M8	12.0	122.5	M6X1	18.5	(15.6)	34	26.0	80	9.0	14.0	12.0	58.3	71.9	125.3	1.981	2.286	2.286	2.34	6.25
H45BN	70	86	20.5	8.9	129.0	60	60		M10	18.0	94.0	M8X1.25	24.4	(16)	45	31.1	105	14.0	20.0	17.0	58.0	71.6	108.9	2.300	1.524	1.524	2.28	9.60
H45BL	70	86	20.5	8.9	145.0	60	60	80	M10	18.0	110.0	M8X1.25	24.4	(16)	45	31.1	105	14.0	20.0	17.0	69.0	85.1	129.5	2.736	2.122	2.122	2.67	9.60
H45BE	70	86	20.5	8.9	174.0	60	80		M10	18.0	139.0	M8X1.25	24.4	(16)	45	31.1	105	14.0	20.0	17.0	79.7	98.4	163.3	3.449	3.379	3.379	3.35	9.60
H55BN	80	100	23.5	12.7	155.0	75	75		M12	22.0	116.0	M8X1.25	24.0	(16)	53	38.0	120	16.0	23.0	20.0	69.8	86.2	133.4	3.303	2.304	2.304	3.42	13.80
H55BL	80	100	23.5	12.7	193.0	75	75	95	M12	22.0	154.0	M8X1.25	24.0	(16)	53	38.0	120	16.0	23.0	20.0	94.2	116.3	178.9	4.428	4.101	4.101	4.57	13.80
H55BE	80	100	23.5	12.7	210.0	75	95		M12	22.0	171.0	M8X1.25	24.0	(16)	53	38.0	120	16.0	23.0	20.0	127.7	157.7	253.6	6.279	6.458	6.458	5.08	13.80

- Equal load capacities in four directions
- High rigidity 4-row angular contact
- Integral all-round double sealing



- High seppd-low noises
- Interchangeability
- No ball drop

Only 1/6-1/10 Fluctuation range for cage block



- Cage & Non-cage blocks on the same profile rail



Accuracy Standard

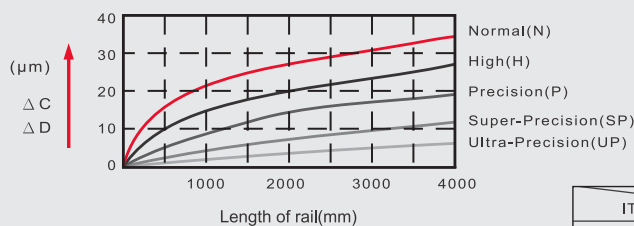
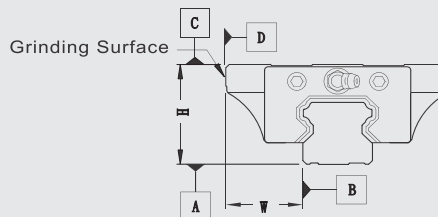


Fig. 1-1 BG rail length and running parallelism



ITEM	GRADE	Unit : mm				
		Normal(N)	High(H)	Precision(P)	Super-Precision(SP)	Ultra-Precision(UP)
Tolerance of height (H)		±0.1	±0.04	0 -0.04	-0.02 0	0 -0.01
Tolerance of width (W)		±0.1	±0.04	0 -0.04	-0.02 0	0 -0.01
Difference of heights (ΔH)		0.03	0.02	0.01	0.005	0.003
Difference of widths (ΔW)		0.03	0.02	0.01	0.005	0.003
Running parallelism of BG Block surface [C] with respect to surface [A]		ΔC Refer to Fig. 1-1				
Running parallelism of BR Block surface [D] with respect to surface [B]		ΔD Refer to Fig. 1-1				

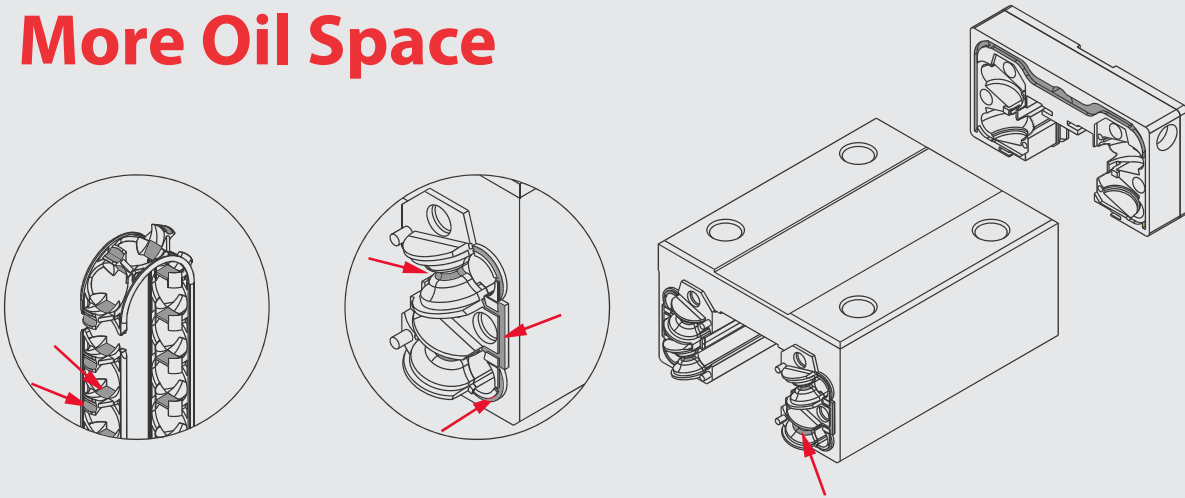
High accuracy

Low noise

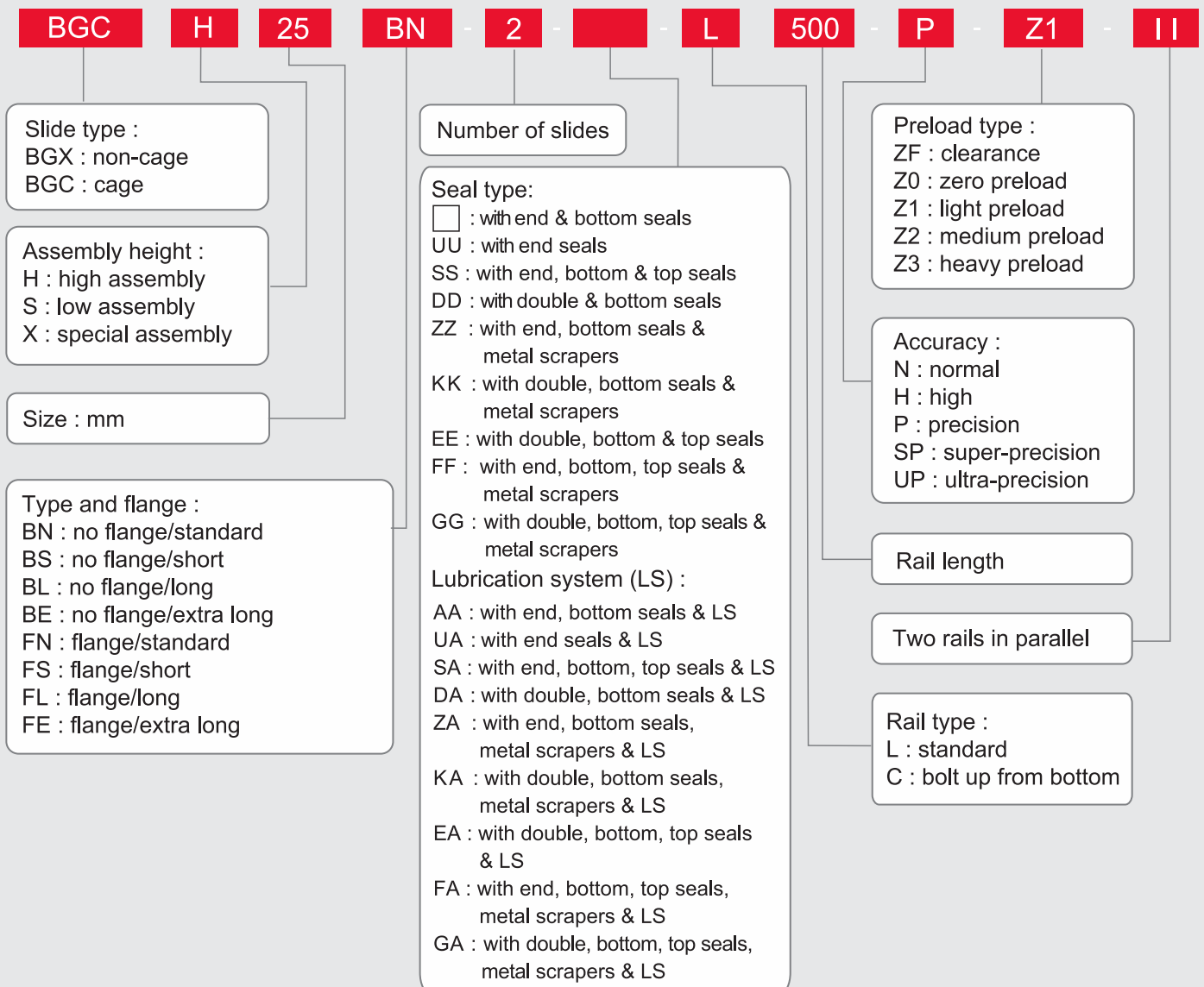
Low friction

Low vibration

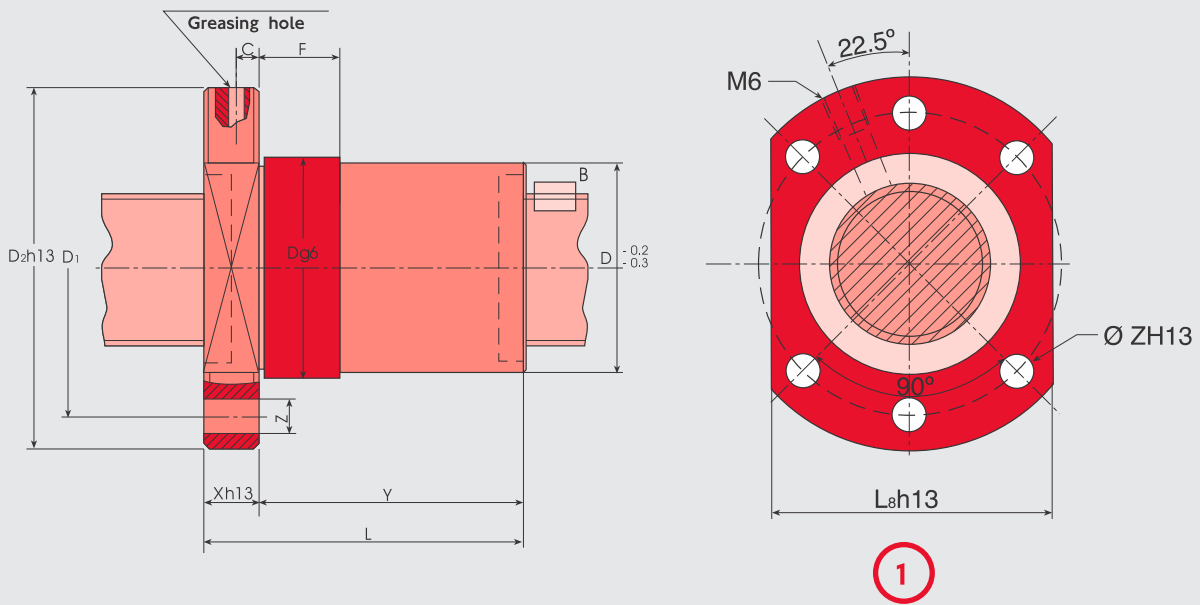
More Oil Space



Model Number Coding

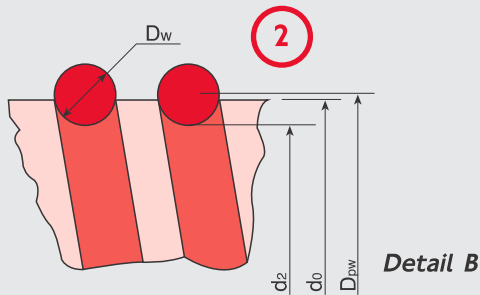
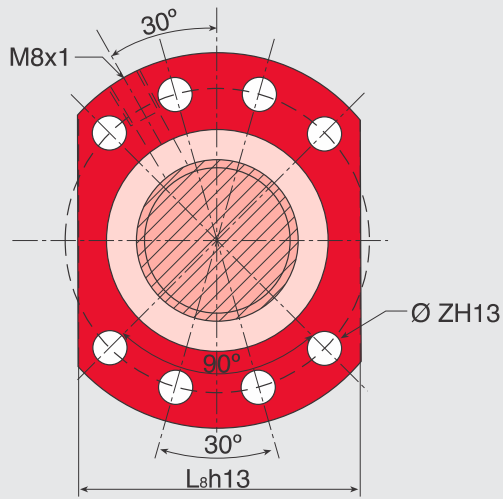


GROUND BALL SCREWS - KBS



Model Number	Diameter (d _g)	Lead (Ph)	Ball Diameter (D _w)	Circuits (i)	D _{pw}	d ₂	Rolled B.S.							
							C ₀ (N)	C _A (N)	Backlash	R _{s1} (N/μm.m)	R _{nu} (N/μm)	C ₀ (N)	C _A (N)	Backlash
KBS-1605	16	5	3.5	2	17	13.5	10881	5759	0,05	34,8	116,3	12090	6399	0,03
KBS-2005	20	5	3.5	3	21	17.5	20804	9323	0,05	56,6	209,1	23116	10359	0,03
KBS-2505	25	5	3.5	3	26	22.5	28262	10985	0,05	91,3	261,1	31402	12205	0,03
KBS2510		10	4.762	3	26.6	21.84	35609	15594	0,05	89	264,8	39566	17327	
KBS-2520		20	3.5	2	26	22.5	21230	8470	0,05	91,3	208	23589	9411	
KBS-3205	32	5	3.5	4	33	29.5	49618	16012	0,05	153,7	420,6	55131	17791	0,03
KBS-3210		10	6.35	3	34.1	27.75	58610	24978	0,05	144,6	317,6	65122	27753	
KBS-3220		20	3.969	3	33.3	29.33	46431	15881	0,05	153,3	389,5	51590	17645	
KBS-3232		32	3.969	2	33.3	29.33	30543	11205	0,05	153,3	259,4	33937	12450	
KBS-4005	40	5	3.5	5	41	37.5	79421	21656	0,05	244,7	624,6	88245	24062	0,03
KBS-4010		10	6.35	4	42.1	35.75	104351	37477	0,05	233,3	528,8	115945	41641	
KBS-4020		20	6.35	3	40.1	33.75	90435	32612	0,05	209,1	462,6	100483	36235	
KBS-4040		40	6.35	2	40.1	33.75	56104	22195	0,05	209,1	302,9	62338	24661	
KBS-5005	50	5	3.5	5	51	47.5	101785	24095	0,05	388,3	731,7	113094	26772	0,03
KBS-5010		10	7.144	5	52	44.86	185917	59639	0,05	363,5	784,8	206574	66265	
KBS-5020		20	7.144	5	50	42.86	217622	66900	0,05	333,2	928,3	241802	74333	
KBS-6305	63	5	3.5	5	64	60.5	131599	26836	0,05	624,2	849,4	146221	29818	0,03
KBS-6310		10	7.144	5	65	57.86	248055	68776	0,05	592,6	958,6	275617	76418	
KBS-6320		20	7.144	5	65	57.86	280126	74672	0,05	592,6	1156,9	311251	82969	

GROUND BALL SCREWS - KBS



Diameter	Lead				
	5	10	20	32	40
16	KBS				
20	KBS				
25	KBS	KBS	KBS		
32	KBS	KBS	KBS	KBS	
40	KBS	KBS	KBS		KBS
50	KBS	KBS	KBS		
63	KBS	KBS	KBS		

DIN69051/5

DIN69051/2

Non standard lead

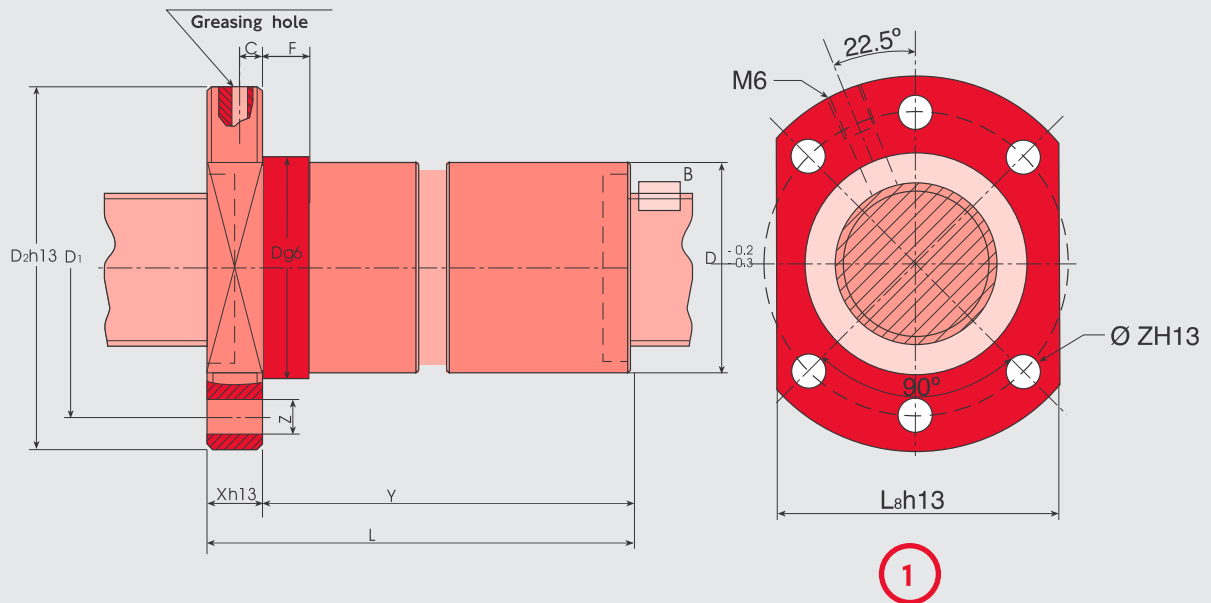
Dimensions												Model Number
D	D ₁	D ₂	X	Y	L	L ₈	Type	Z	C	F		
28	38	48	10	28	38	40	1	5,5	5	10	KBS-1605	
36	47	58	10	33	43	44	1	6,6	5	10	KBS-2005	
40	51	62	10	33	43	48	1	6,6	5	10	KBS-2505	
				55	65					16	KBS2510	
				59	69					25	KBS-2520	
50	65	80	12	38	50	62	1	9	6	10	KBS-3205	
				63	75					16	KBS-3210	
				87	99					25	KBS-3220	
				86	101					40	KBS-3232	
63	78	93	14	43	57	70	2	9	7	10	KBS-4005	
				74	88					16	KBS-4010	
				88	102					25	KBS-4020	
				106	120					45	KBS-4040	
75	93	110	16	43	59	85	2	11	8	10	KBS-5005	
				84	100					16	KBS-5010	
				127	143					25	KBS-5020	
90	108	125	18	43	61	95	2	11	9	10	KBS-6305	
				84	102					16	KBS-6310	
95	115	135	20	124	144	100		13,5	10	25	KBS-6320	

● Standard thread RH only. Left-hand thread on request.

● Rs1= Rigidity of the ball screw shaft with one end fixed and one end free, per unit length of one metre. For two-end fixed systems, multiply by 4.

● Rnu= Rigidity of the nut for a working load equal to 30% of the dynamic load rating and for a tolerance grade of IT5.

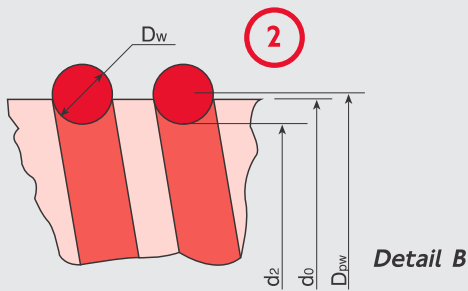
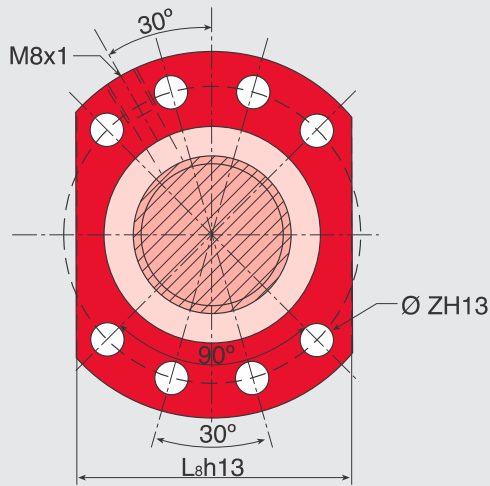
GROUND BALL SCREWS - EDBS



- Standard thread RH only. Left-hand thread on request.
- R_{s1} = Rigidity of the ball screw shaft with one end fixed and one end free, per unit length of one metre. For two-end fixed systems, multiply by 4.
- R_{nu} = Rigidity of the nut for a working load equal to 30% of the dynamic load rating and for a tolerance grade of IT5.

Model Number	Diameter (d_0)	Lead (Ph)	Ball Diameter (Dw)	Circuits (i)	D_{pw}	d_2	Load rating		Rigidity	
							C_0 (N)	C_A (N)	R_{s1} (N/ μ m.m)	R_{nu} (N/ μ m)
EDBS-1605	16	5	3,5	2	17	13,5	12 090	6 399	6 399	130,8
EDBS-2005	20	5	3,5	3	21	17,5	23 116	10 359	10 359	235,7
EDBS-2505	25	5	3,5	3	26	22,5	31 402	12 205	12 205	297,2
EDBS-2510		10	4,762	3	26,6	21,84	39 566	17 327	17 327	297,4
EDBS-2520		20	3,5	2	26	22,5	23 589	9 411	9 411	231,6
EDBS-3205	32	5	3,5	4	33	29,5	55 131	17 791	17 791	481,8
EDBS-3210		10	6,35	3	34,1	27,75	65 122	27 753	27 753	358,5
EDBS-3220		20	3,969	3	33,3	29,33	51 590	17 645	17 645	436,1
EDBS-3232		32	3,969	2	33,3	29,33	33 937	12 450	12 450	288,3
EDBS-4005	40	5	3,5	5	41	37,5	88 245	24 062	24 062	718,9
EDBS-4010		10	6,35	4	42,1	35,75	115 945	41 641	41 641	598,6
EDBS-4020		20	6,35	3	40,1	33,75	100 483	36 235	36 235	517,3
EDBS-4040		40	6,35	2	40,1	33,75	62 338	24 661	24 661	336,4
EDBS-5005	50	5	3,5	5	51	47,5	113 094	26 772	26 772	851,2
EDBS-5010		10	7,144	5	52	44,86	206 574	66 265	66 265	894,8
EDBS-5020		20	7,144	5	50	42,86	24 1802	74 333	74 333	1 042,4
EDBS-6305	63	5	3,5	5	64	60,5	146 221	29 818	29 818	1 002,2
EDBS-6310		10	7,144	5	65	57,86	275 617	76 418	76 418	1 104,3
EDBS-6320		20	7,144	5	65	57,86	311 251	82 969	82 969	1 305,1
EDBS-8010	80	10	7,144	6	82	74,856	441 184	102 213	102 213	1 564,5
EDBS-8020		20	9,525	5	82,6	73,075	533 922	137 429	137 429	1 644,1

GROUND BALL SCREWS - EDBS



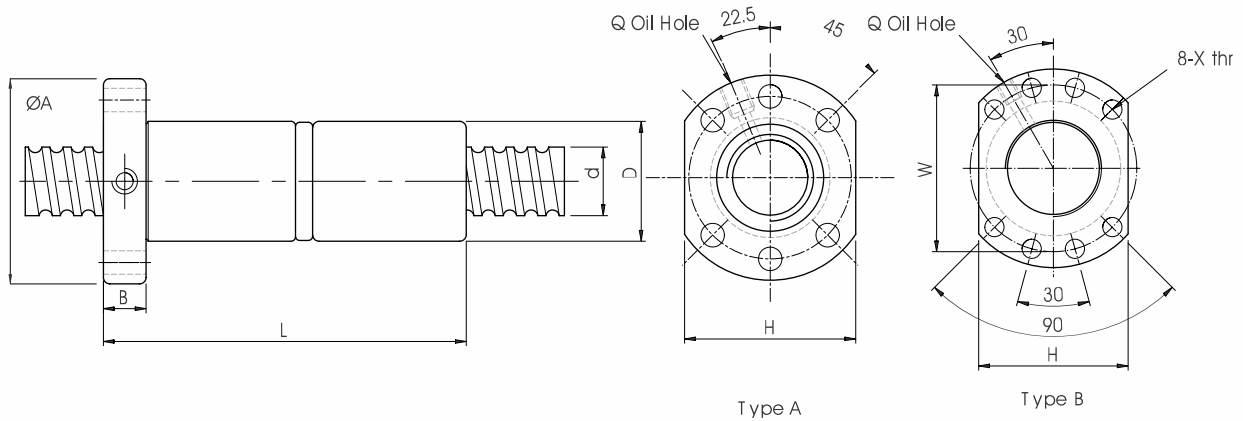
Diameter	Lead				
	5	10	20	32	40
16	EDBS				
20	EDBS				
25	EDBS	EDBS	EDBS		
32	EDBS	EDBS	EDBS	EDBS	
40	EDBS	EDBS	EDBS		EDBS
50	EDBS	EDBS	EDBS		
63	EDBS	EDBS	EDBS		
80		EDBS	EDBS		

DIN69051/5

DIN69051/2

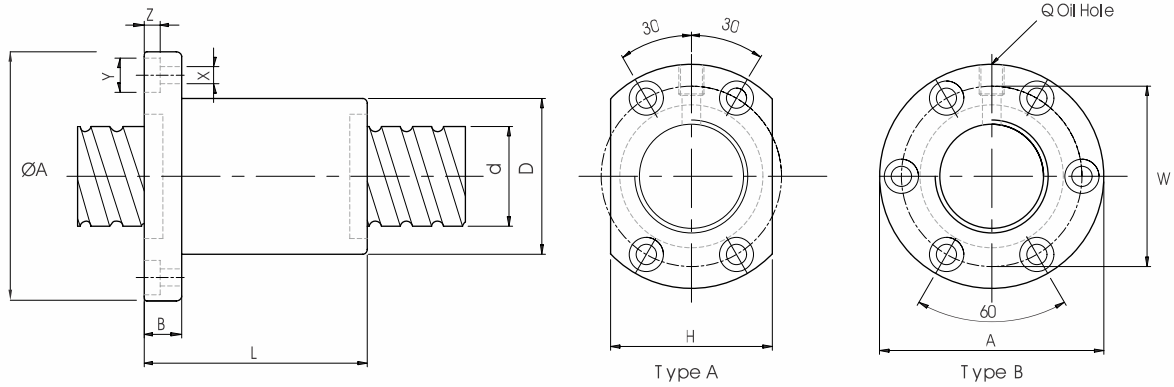
Non standard lead

	Dimensions										Model Number
	D	D ₁	D ₂	X	L	L _g	Type	Z	C	F	
	28	38	48	10	66	40	1	5.5	5	10	EDBS-1605
	36	47	58	10	76	44	1	6.6	5	10	EDBS-2005
	40	51	62	10	76	48	1	6.6	5	10	EDBS-2505
120					16					EDBS-2510	
133					25					EDBS-2520	
	50	65	80	12	88	62	1	9	6	10	EDBS-3205
133					16					EDBS-3210	
183					25					EDBS-3220	
187					40					EDBS-3232	
	63	78	93	14	100	70	2	9	7	10	EDBS-4005
157					16					EDBS-4010	
189					25					EDBS-4020	
225					45					EDBS-4040	
	75	93	110	16	102	85	2	11	8	10	EDBS-5005
179					16					EDBS-5010	
271					25					EDBS-5020	
	90	108	125	18	104	85	2	11	9	10	EDBS-6305
181					16					EDBS-6310	
	95	115	135	20	273	100		13.5	10	25	EDBS-6320
	105	125	145	20	205	110		13.5	10	16	EDBS-8010
	125	145	165	25	276	130			12.5	25	EDBS-8020



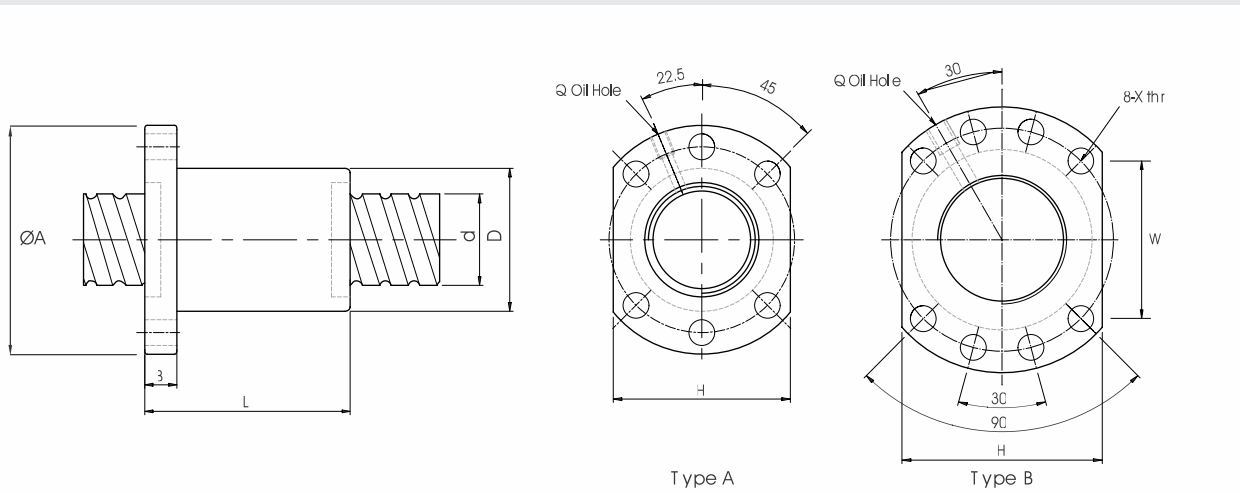
Unit: mm

Model Number	Dimensions															
	d	l	Da	D	A	B	L	W	X	Type	H	Q	n	Ca (Kgf)	Coa (Kgf)	K
1605-3	16	5	3.175	28	48	10	80	38	5.5	A	40	M6	3	780	1 790	37
2005-4	20	5	3.175	36	58	12	92	47	6.6	A	44	M6	4	1 100	2 280	49
2505-4	25	5	3.175	40	62	12	92	51	6.6	A	48	M6	4	1 250	3 070	58
2510-4	25	10	4.762	40	62	12	153	51	6.6	A	48	M6	4	1 944	3 877	49
3205-4	32	5	3.175	50	80	12	92	65	9	A	62	M6	4	1 400	4 080	70
3210-4	32	10	6.35	50	80	16	160	65	9	A	62	M6	4	3 390	7 170	79
4005-4	40	5	3.175	63	93	15	96	78	9	B	70	M8	4	1 575	5 290	84
4010-4	40	10	6.35	63	93	18	162	78	9	B	70	M8	4	3 850	9 470	97
5010-4	50	10	6.35	75	110	16	162	93	11	B	85	M8	4	4 390	12 400	115
6310-4	63	10	6.35	105	145	20	182	125	13.5	B	110	M8	4	5 620	21 300	165
8010-4	80	10	6.35	105	145	20	182	125	13.5	B	110	M8	4	5 620	21 300	207



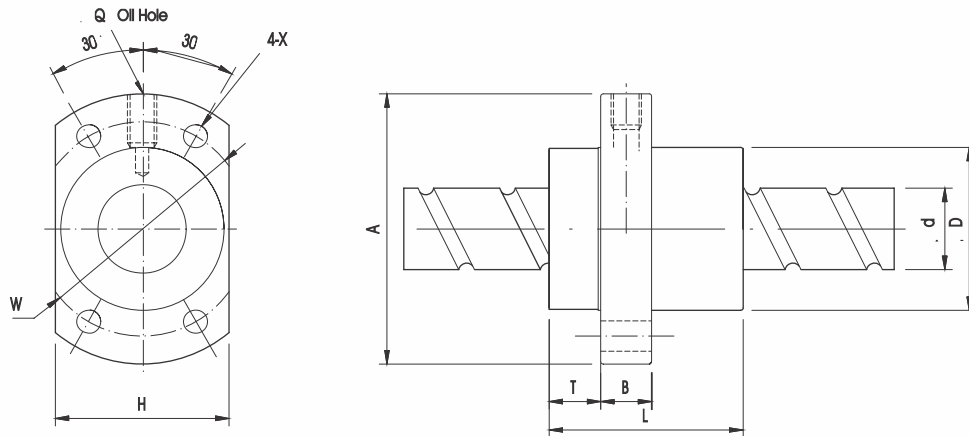
Unit: mm

Model Number	Dimensions																
	d	l	Da	D	A	B	L	W	X	Y	Z	H	Q	n	Ca (Kgf)	Coa (Kgf)	K
1404-4	14	4	2.381	26	46	10	47	36	4.5	8	4.5	34	M6	4	400	890	18
1605-4	16	5	3.175	30	49	10	50	39	4.5	8	4.5	34	M6	4	780	1 790	17
1610-4	16	10	3.175	34	58	10	54.6	45	5.5	9.5	5.5	36	M6	4	918	1 643	15
2005-4	20	5	3.175	34	57	12	53	45	5.5	9.5	5.5	40	M6	4	1 100	2 280	21
2505-4	25	5	3.175	40	63	12	53	51	5.5	9.5	5.5	46	M8	4	1 250	3 070	26
2510-4	25	10	4.762	46	72	12	85	58	6.5	11	6.5	52	M6	4	1 944	3 877	27
3205-4	32	5	3.175	46	72	12	53	58	6.5	11	6.5	52	M8	4	1 400	4 080	32
3210-4	32	10	6.35	54	88	16	90	70	9	14	8.5	62	M8	4	3 390	7 170	34
4005-4	40	5	3.175	56	90	16	56	72	9	14	8.5	64	M8	4	1 575	5 290	38
4010-4	40	10	6.35	62	104	18	93	82	11	17.5	11	70	M8	4	3 850	9 470	41
5010-4	50	10	6.35	72	114	18	93	92	11	17.5	11	82	M8	4	4 390	12 400	50



Unit: mm

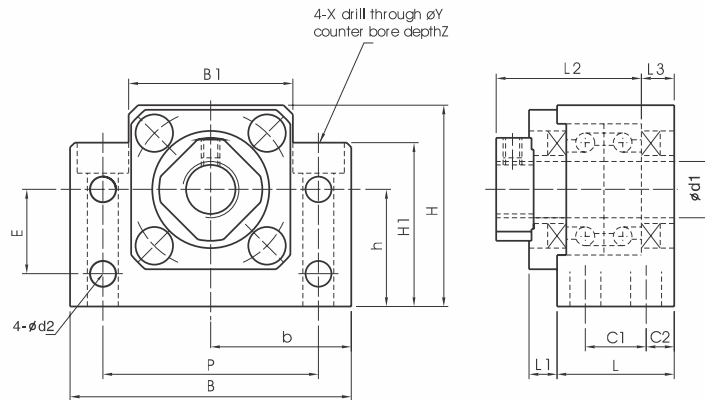
Model Number	Dimensions															
	d	l	Da	D	A	B	L	W	X	Type	H	Q	n	Ca (Kgf)	Coa (Kgf)	K
1605-3	16	5	3.175	28	48	10	42	38	5.5	A	40	M6	3	765	1 240	17
1605-4	16	5	3.175	28	48	10	50	38	5.5	A	40	M6	4	780	1 790	17
1610-3	16	10	3.175	28	48	12	43.3	38	5.5	A	40	M6	3	716	1 232	15
2005-4	20	5	3.175	36	58	10	53	47	6.6	A	44	M6	4	1 100	2 280	21
2505-4	25	5	3.175	40	62	10	53	51	6.6	A	48	M6	4	1 250	3 070	26
2510-4	25	10	4.762	40	62	12	85	51	6.6	A	48	M6	4	1 944	3 877	27
3205-4	32	5	3.175	50	80	12	53	65	9	A	62	M6	4	1 400	4 080	32
3210-3	32	10	6.35	50	80	16	74	65	9	A	62	M6	3	2 605	5 310	34
3210-4	32	10	6.35	50	80	16	90	65	9	A	62	M6	4	3 390	7 170	34
4005-4	40	5	3.175	63	93	16	56	78	9	B	70	M8	4	1 575	5 290	38
4010-4	40	10	6.35	63	93	18	93	78	9	B	70	M8	4	3 850	9 470	41
5010-4	50	10	6.35	75	110	18	93	93	11	B	85	M8	4	4 390	12 400	50
6310-4	63	10	6.35	90	125	18	98	108	11	B	95	M8	4	5 070	16 600	80
8010-4	80	10	6.35	105	145	20	98	125	13.5	B	110	M8	4	5 620	21 300	90



Unit: mm

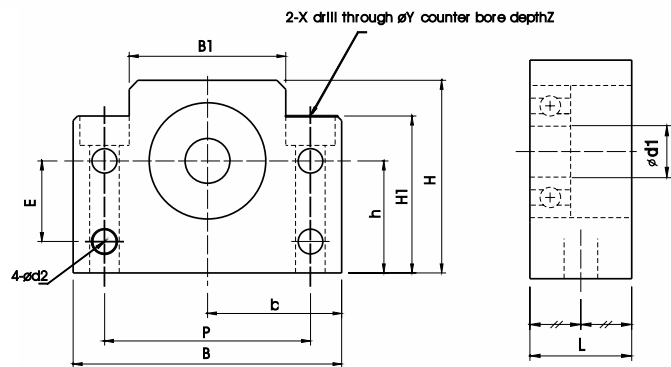
Model Number	Dimensions															
	d	l	Da	D	A	B	T	L	W	X	H	Q	Ca (Kgf)	Coa (Kgf)	Circuit x Row	K
1616-2	16	16	3.175	32	53	10	10.5	45	42	4.5	38	M6	719	1 429	1.8X2	9
2020-2	20	20	3.175	39	62	10	10.8	52	50	5.5	46	M6	780	2 280	1.8X2	21
2525-2	25	25	3.969	47	74	12	11.2	64	60	6.6	56	M6	1 230	3 570	1.8X2	27
3232-2	32	32	4.762	58	92	15	14	80	74	9	68	M6	1 760	5 500	1.8X2	33
4040-2	40	40	6.35	73	114	17	17	95	93	11	84	M6	2 870	9 170	1.8X2	42

BALL SCREW SUPPORT UNIT - BK



Model Number	Dimensions																				
	d1	L	L1	L2	L3	C1	C2	B	H	b ^{±0.02}	h ^{±0.02}	B1	H1	E	P	d2	X	Y	Z	M	T
BK 10	10	25	5	29	5	13	6	60	39	30	22	34	32.5	15	46	5.5	6.6	10.8	5	M3	16
BK 12	12	25	5	29	5	13	6	60	43	30	25	35	32.5	18	46	5.5	6.6	10.8	1.5	M3	19
BK 15	15	27	6	32	6	15	6	70	48	35	28	40	38	18	54	5.5	6.6	11	6.5	M3	22
BK 17	17	35	9	44	7	19	8	86	64	43	39	50	55	28	68	6.6	9	14	8.5	M4	24
BK 20	20	35	8	43	8	19	8	88	60	44	34	52	50	22	70	6.6	9	14	8.5	M4	30
BK 25	25	42	12	54	9	22	10	106	80	53	48	64	70	33	85	9	11	17.5	11	M5	35
BK 30	30	45	14	61	9	23	11	128	89	64	51	76	78	33	102	11	14	20	13	M6	40
BK 35	35	50	14	67	12	26	12	140	96	70	52	88	79	35	114	11	14	20	13	M8	50
BK 40	40	61	18	76	15	33	14	160	110	80	60	100	90	37	130	14	18	26	17.5	M8	50

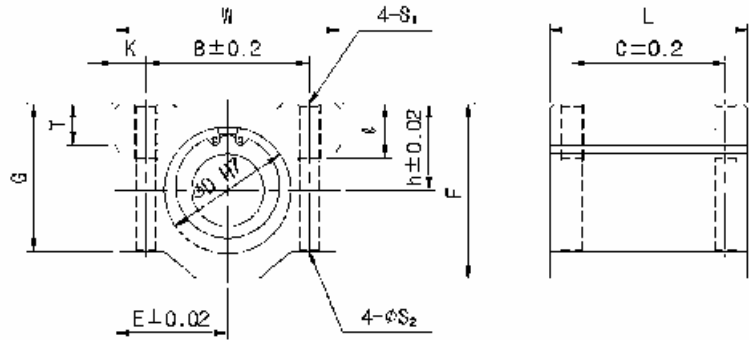
BALL SCREW SUPPORT UNIT - BF



Unit: mm

Model Number	Dimensions													
	d1	L	B	H	$b_{\pm 0.02}$	$h_{\pm 0.02}$	B1	H1	E	P	d2	X	Y	Z
BF 10	8	20	60	39	30	22	34	32.5	15	46	5.5	6.6	10.8	5
BF 12	10	20	60	43	30	25	35	35	18	46	5.5	6.6	10.8	1.5
BF 15	15	20	70	48	35	28	40	38	18	54	5.5	6.6	11	6.5
BF 17	17	23	86	64	43	39	50	55	28	68	6.6	9	14	8.5
BF 20	20	26	88	60	44	34	52	50	22	70	6.6	9	14	8.5
BF 25	25	30	106	80	53	48	64	70	33	85	9	11	17.5	11
BF 30	30	32	128	89	64	51	76	78	33	102	11	14	20	13
BF 35	35	32	140	96	70	52	88	79	35	114	11	14	20	13
BF 40	40	37	160	110	80	60	100	90	37	130	14	18	26	17.5

SH Type

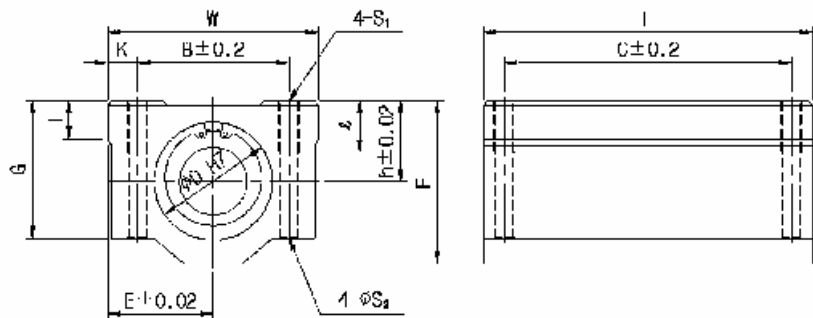
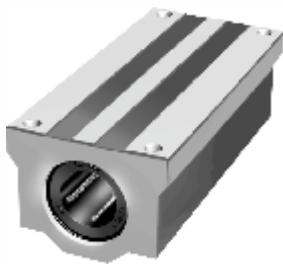


Open type (with 1pc of SB)

Unit: mm

Part No	Dimensions								Mounting Dimensions						Shaft	Basic load ratings	
	D	h	E	W	L	F	G	T	B	C	K	S ₁	S ₂	l		d	dyn C (N)
SH16UU	28	19	25	50	44	38.5	32.5	9	36	34	7	M5	4.3	12	16	1225	637
SH20UU	32	21	27	54	50	41.0	35.0	11	40	40	7	M6	5.2	12	20	2303	1225
SH25UU	40	26	38	76	67	51.5	42.0	12	54	50	11	M8	7.0	18	25	4312	2058
SH30UU	45	30	39	78	72	59.5	49.0	15	58	58	10	M8	7.0	18	30	4802	2548
SH40UU	60	40	51	102	90	78.0	62.0	20	80	60	11	M10	8.7	25	40	9310	4312
SH50UU	80	52	61	122	110	102	80.0	25	100	80	11	M10	8.7	25	50	13132	6468

SHW Type

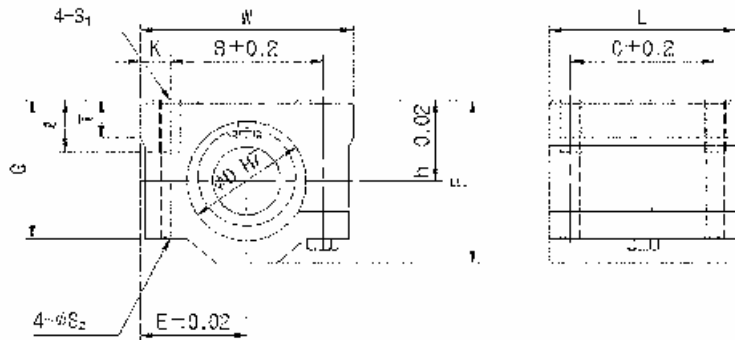
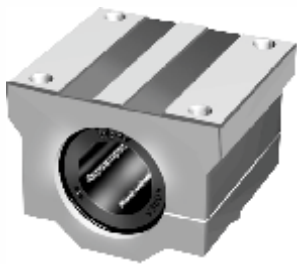


Double closed type (with 2pcs of SB)

Unit: mm

Part No	Dimensions								Mounting Dimensions						Shaft	Basic load ratings	
	D	h	E	W	L	F	G	T	B	C	K	S ₁	S ₂	l		d	dyn C (N)
SHW16UU	28	19	25	50	85	38.5	32.5	9	36	60	7	M5	4.3	12	16	1989	1274
SHW20UU	32	21	27	54	96	41.0	35.0	11	40	70	7	M6	5.2	12	20	3734	2450
SHW25UU	40	25	38	76	130	51.5	42.0	12	54	100	11	M8	7.0	18	25	6987	4116
SHW30UU	45	30	39	78	140	59.5	49.0	15	58	110	10	M8	7.0	18	30	7781	5096
SHW40UU	60	40	51	102	175	78.0	62.0	20	80	140	11	M10	8.7	25	40	15092	8624

SH-A Type

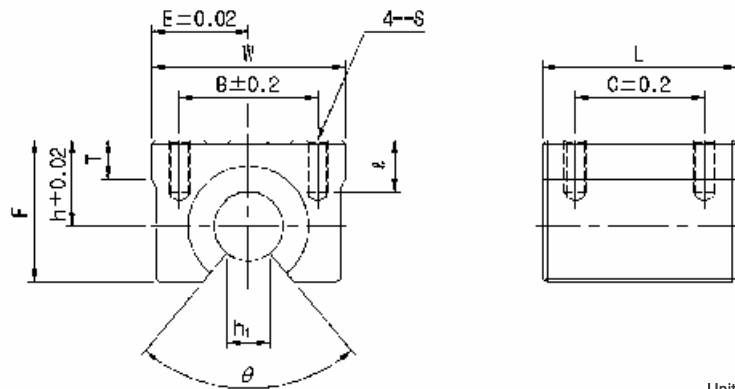


Closed adjustable clearance type (with 1pc of SB)

Unit: mm

Part No	Dimensions							Mounting Dimensions						Shaft	Basic load ratings	
	h	E	W	L	F	G	T	B	C	K	S ₁	S ₂	l		d	dyn C (N)
SH16AUU	19	25	50	44	38.5	32.5	9	36	34	7	M5	4.3	12	16	1225	637
SH20AUU	21	27	54	50	41.0	35.0	11	40	40	7	M6	5.2	12	20	2303	1225
SH25AUU	26	38	76	67	51.5	42.0	12	54	50	11	M8	7.0	18	25	4312	2058
SH30AUU	30	39	78	72	59.5	49.0	15	58	58	10	M8	7.0	18	30	4802	2548
SH40AUU	40	51	102	90	78.0	62.0	20	80	60	11	M10	8.7	25	40	9310	4312
SH50AUU	52	61	122	110	102	80.0	25	100	80	11	M10	8.7	25	50	13132	6468

SHO Type

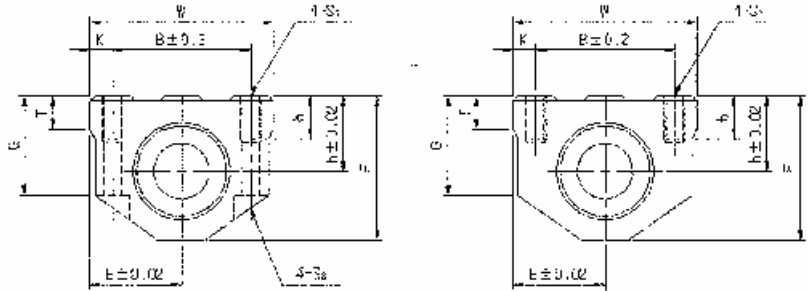


Open type (with 1pc of SBO)

Unit: mm

Part No	Dimensions								Mounting Dimensions				Shaft	Basic load ratings	
	h	E	W	L	F	T	h ₁	∅	B	C	S	l		d	dyn C (N)
SHO16UU	20	22.5	45	45	33	9	11.0	60°	32	30	M5	12	16	1372	754
SHO20UU	23	24.0	48	50	39	11	11.0	60°	35	35	M6	12	20	2332	1244
SHO25UU	27	30.0	60	65	47	14	12.5	60°	40	40	M6	12	25	4351	2097
SHO30UU	33	35.0	70	70	56	15	15.0	60°	50	50	M8	18	30	4851	2997
SHO40UU	42	45.0	90	90	72	20	20.0	60°	65	65	M10	20	40	9408	4410

CS Type



B-TYPE

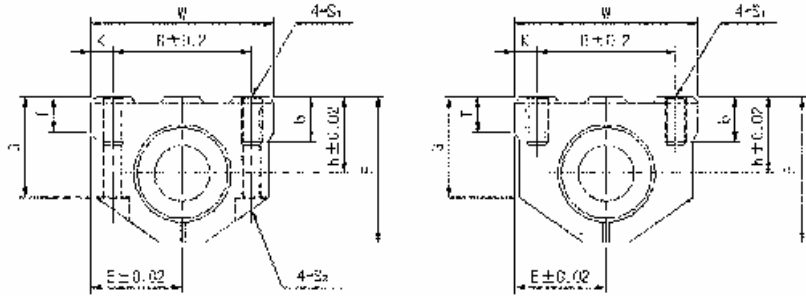


Closed type (with 1pc of SBE)

Unit: mm

Part No	Dimensions								Mounting Dimensions					Shaft l	No. Ball Rows	Basic load ratings	
	h	E	W	L	F	G	T	B	C	K	b	S1	S2			dyn C (N)	stat Co (N)
CS16UU	22	26.5	53	43	42	29	10	40	26	6.5	13	M6	-	16	5	1176	607
CS16UU-B													M5				
CS20UU	25	30.0	60	54	50	34	12	45	32	7.5	18	M8	-	20	6	2352	1254
CS20UU-B													M6				
CS25UU	30	39.0	78	67	60	40	15	60	40	9.0	22	M10	-	25	6	4508	2195
CS25UU-B													M8				
CS30UU	35	43.5	87	79	70	48	17	68	45	9.5	22	M10	-	30	6	5580	2959
CS30UU-B													M8				
CS40UU	45	54.0	108	91	90	62	22	86	58	11.0	26	M12	-	40	6	9310	4312
CS40UU-B													M10				
CS50UU	50	66.0	132	113	105	68	25	108	50	12.0	34	M16	-	50	6	13720	6762
CS50UU-B													M12				

CS-A Type



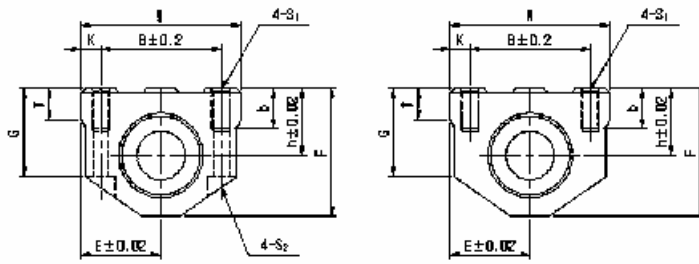
B-TYPE

Closed adjustable clearance type (with 1pc of SBE)

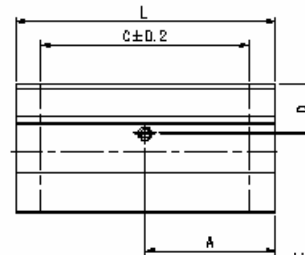
Unit: mm

Part No	Dimensions								Mounting Dimensions					Shaft	No. Ball Rows	Basic load ratings	
	h	E	W	L	F	G	T	B	C	K	b	S ₁	S ₂			l	dyn C (N)
CS16AUU	22	26.5	53	43	42	29	10	40	26	6.5	13	M6	-	16	5	1176	607
CS16AUU-B													M5				
CS20AUU	25	30.0	60	54	50	34	12	45	32	7.5	18	M8	-	20	6	2352	1254
CS20AUU-B													M6				
CS25AUU	30	39.0	78	67	60	40	15	60	40	9.0	22	M10	-	25	6	4508	2195
CS25AUU-B													M8				
CS30AUU	35	43.5	87	79	70	48	17	68	45	9.5	22	M10	-	30	6	5586	2959
CS30AUU-B													M8				
CS40AUU	45	54.0	108	91	90	62	22	86	58	11.0	26	M12	-	40	6	9310	4312
CS40AUU-B													M10				
CS50AUU	50	66.0	132	113	105	68	25	108	50	12.0	34	M16	-	50	6	13720	6762
CS50AUU-B													M12				

CSW Type



B-TYPE

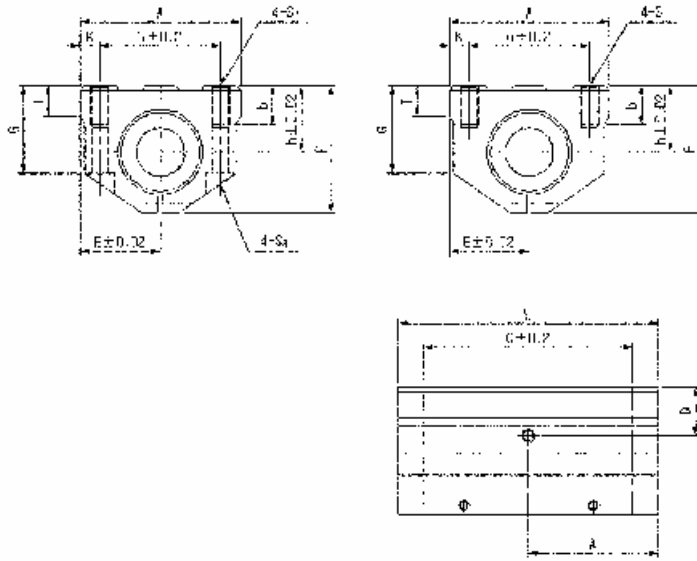


Double closed type (with 2pcs of SBE)

Unit: mm

Part No	Dimensions								Mounting Dimensions					Shaft l	No. Ball Rows	Basic load ratings	
	h	E	W	L	F	G	T	B	C	K	b	S ₁	S ₂			dyn C (N)	stat C ₀ (N)
CSW16UU	22	26.5	53	84	42	29	10	40	64	6.5	13	M6	-	16	5	1911	1215
CSW16UU-B													M5				
CSW20UU	25	30.0	60	104	50	34	12	45	76	7.5	18	M8	-	20	6	3812	2508
CSW20UU-B													M6				
CSW25UU	30	39.0	78	130	60	40	15	60	94	9.0	22	M10	-	25	6	7310	4390
CSW25UU-B													M8				
CSW30UU	35	43.5	87	152	70	48	17	68	106	9.5	22	M10	-	30	6	9055	5919
CSW30UU-B													M8				
CSW40UU	45	54.0	108	176	90	62	22	86	124	11.0	26	M12	-	40	6	15092	8624
CSW40UU-B													M10				
CSW50UU	50	66.0	132	224	105	68	25	108	160	12.0	35	M16	-	50	6	22246	13524
CSW50UU-B													M12				

CSW-A Type

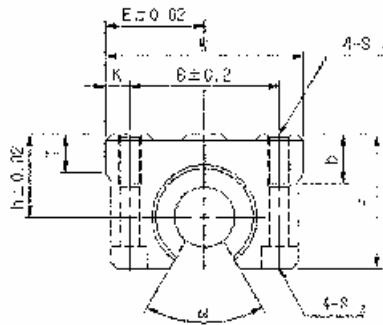


Double closed adjustable clearance type (with 2pcs of SBE)

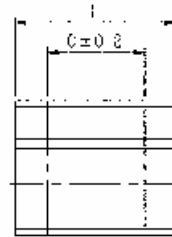
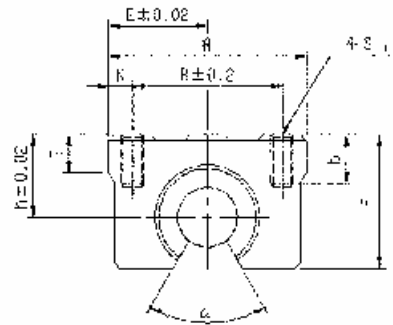
Unit: mm

Part No	Dimensions									Mounting Dimensions						Shaft d	No. Ball Rows	Basic load ratings	
	h	E	W	L	F	G	T	B	C	K	b	S1	S2	A	D			dyn C (N)	stat Co (N)
CSW16AUU	22	26.5	53	84	42	29	10	40	64	6.5	12	M6	-	42	16.0	16	5	1911	1215
CSW16AUU-B													M5						
CSW20AUU	25	30.0	60	104	50	34	12	45	76	7.5	18	M8	-	52	19.5	20	6	3812	2508
CSW20AUU-B													M6						
CSW25AUU	30	39.0	78	130	60	40	15	60	94	9.0	25	M10	-	65	24.0	25	6	7310	4390
CSW25AUU-B													M8						
CSW30AUU	35	43.5	87	152	70	48	17	68	106	9.5	25	M10	-	76	30.5	30	6	9055	5919
CSW30AUU-B													M8						
CSW40AUU	45	54.0	108	176	90	62	22	86	124	11.0	25	M12	-	88	38.0	40	6	15092	8624
CSW40AUU-B													M10						
CSW50AUU	50	66.0	132	224	105	68	25	108	160	12.0	35	M16	-	112	43.0	50	6	22246	13524
CSW50AUU-B													M12						

CSO Type



B-TYPE

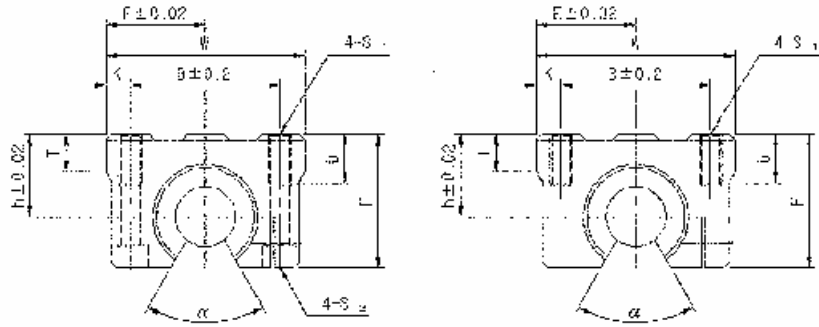


Open type (with 1pc of SBEO)

Unit: mm

Part No	Dimensions								Mounting Dimensions					Shaft l	No. Ball Rows	Basic load ratings	
	h	E	W	L	F	T	h ₁	∅	B	C	b	S ₁	S ₂			dyn C (N)	stat Co (N)
CSO16UU	22	26.5	53	43	35	8	9.0	68°	40	26	13	M6	-	16	4	1332	715
CSO16UU-B													M5				
CSO20UU	25	30.0	60	54	42	10	9.0	55°	45	32	18	M8	-	20	5	2371	1274
CSO20UU-B													M6				
CSO25UU	30	39.0	78	67	51	13	11.5	57°	60	40	22	M10	-	25	5	4557	2234
CSO25UU-B													M8				
CSO30UU	35	43.5	87	79	60	15	14.0	57°	68	45	22	M10	-	30	5	5644	3018
CSO30UU-B													M8				
CSO40UU	45	54.0	108	91	77	20	19.5	56°	86	58	26	M12	-	40	5	9398	4410
CSO40UU-B													M10				
CSO50UU	50	66.0	132	113	88	25	22.5	54°	108	50	34	M16	-	50	5	13857	6860
CSO50UU-B													M12				

CSO-A Type



B-TYPE

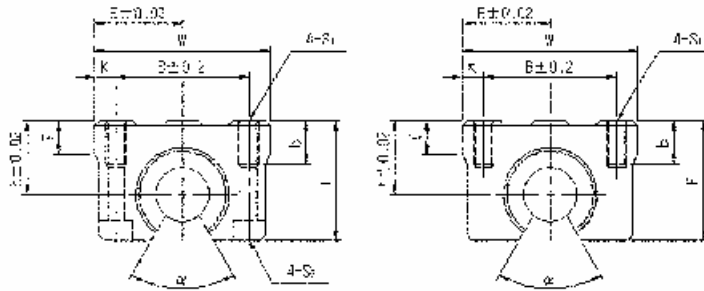
Unit: mm

Open adjustable clearance type (with 1pc of SBEO)

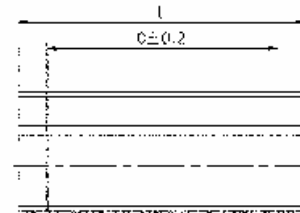
Part No	Dimensions								Mounting Dimensions					Shaft d	No. Ball Rows	Basic load ratings	
	h	E	W	L	F	T	h ₁	∅	B	C	b	S ₁	S ₂			dyn C (N)	stat Co (N)
CSO16AUU	22	26.5	53	43	35	8	9.0	68°	40	26	13	M6	-	16	4	1332	715
CSO16AUU-B													M5				
CSO20AUU	25	30.0	60	54	42	10	9.0	55°	45	32	18	M8	-	20	5	2371	1274
CSO20AUU-B													M6				
CSO25AUU	30	39.0	78	67	51	13	11.5	57°	60	40	22	M10	-	25	5	4557	2234
CSO25AUU-B													M8				
CSO30AUU	35	43.5	87	79	60	15	14.0	57°	68	45	22	M10	-	30	5	5644	3018
CSO30AUU-B													M8				
CSO40AUU	45	54.0	108	91	77	20	19.5	56°	86	58	26	M12	-	40	5	9398	4410
CSO40AUU-B													M10				
CSO50AUU	50	66.0	132	113	88	25	22.5	54°	108	50	34	M16	-	50	5	13857	6860
CSO50AUU-B													M12				

FLANGE TYPE SUPER BALL BUSHING

CSOW Type



B-TYPE

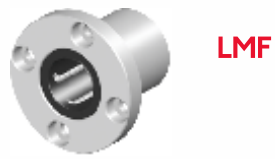


Double open type (with 2pcs of SBEO)

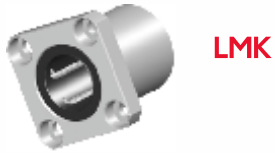
Unit: mm

Part No	Dimensions								Mounting Dimensions					Shaft d	No. Ball Rows	Basic load ratings	
	h	E	W	L	F	T	h ₁	Ø	B	C	b	S ₁	S ₂			dyn C (N)	stat Co (N)
CSOW16UU	22	26.5	53	84	35	10	9.0	68°	40	64	13	M6	-	16	4	2195	1430
CSOW16UU-B													M5				
CSOW20UU	25	30.0	60	104	42	12	9.0	55°	45	76	18	M8	-	20	5	3871	2548
CSOW20UU-B													M6				
CSOW25UU	30	39.0	78	130	51	15	11.5	57°	60	94	22	M10	-	25	5	9408	4468
CSOW25UU-B													M8				
CSOW30UU	35	43.5	87	152	60	17	14.0	57°	68	106	22	M10	-	30	5	9212	6036
CSOW30UU-B													M8				
CSOW40UU	45	54.0	108	176	77	22	19.5	56°	86	124	26	M12	-	40	5	15288	8820
CSOW40UU-B													M10				
CSOW50UU	50	66.0	132	224	88	25	22.5	54°	108	160	35	M16	-	50	5	21854	13720
CSOW50UU-B													M12				

FLANGE TYPE LINEAR BALL BUSHING



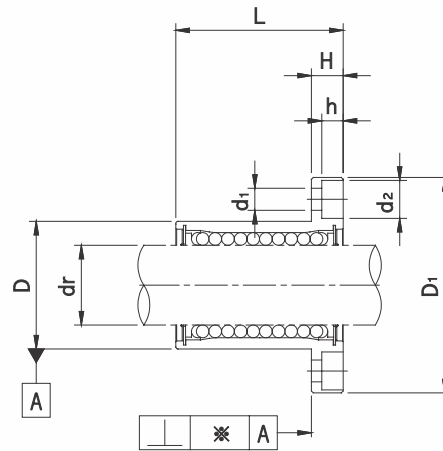
LMF



LMK



LMH



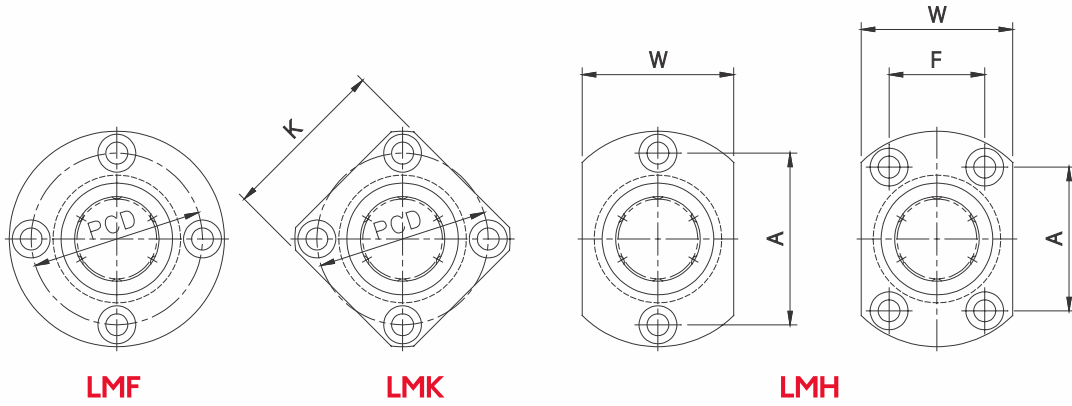
Unit: mm

Part No.			No. of Ball Circuit	Wgt. * (gf)	Allowable Diametral Clearance (μm)	Basic Load Ratings		Working Bore Diameter	
Circular Type	Square Type	Oval Type				Dyn C (N)	Stat Co (N)	Tol. (mm)	Tol. (μm)
LMF6UU	LMK6UU	-	4	26.5	-5	200	260	6	0 -9
LMF8SUU	LMK8SUU	-	4	34.0	-5	170	220	8	
LMF8UU	LMK8UU	-	4	40.0	-5	260	400	8	
LMF10UU	LMK10UU	LMH10UU	4	78.0	-5	370	540	10	
LMF12UU	LMK12UU	LMH12UU	4	76.0	-5	410	590	12	
LMF13UU	LMK13UU	LMH13UU	4	94.0	-7	500	770	13	
LMF16UU	LMK16UU	LMH16UU	5	134.0	-7	770	1170	16	0 -10
LMF20UU	LMK20UU	LMH20UU	5	180.0	-9	860	1370	20	
LMF25UU	LMK25UU	LMH25UU	6	340.0	-9	980	1560	25	
LMF30UU	LMK30UU	LMH30UU	6	460.0	-9	1560	2740	30	0 -12
LMF35UU	LMK35UU	-	6	795.0	-13	1660	3130	35	
LMF40UU	LMK40UU	-	6	1054.0	-13	2150	4010	40	
LMF50UU	LMK50UU	-	6	2200.0	-13	3820	7930	50	
LMF60UU	LMK60UU	-	6	2960.0	-16	4700	9990	60	0 -15

Plating & Raydent treatment are available

* The value of Circular type

FLANGE TYPE LINEAR BALL BUSHING



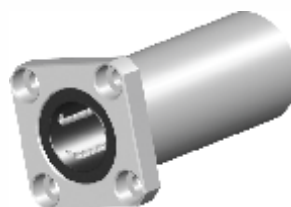
Unit: mm

Part No	Dimensions (mm)													
	D		L		B		H	PCD	K	W	A	F	Squareness (μm)	d ₁ x d ₂ x h
	(mm)	Tol. (μm)	(mm)	Tol. (μm)	(mm)	Tol. (μm)								
LMF/K/H6UU	12	0 -11	19	0	28	0	5	20	22	-	-	-	12	3.4x6.5x3.3
LMF/K/H8SUU	15		17		32		5	24	25	-	-	-	12	3.4x6.5x3.3
LMF/K/H8UU	15		24		32		5	24	25	-	-	-	12	3.4x6.5x3.3
LMF/K/H10UU	19	0 -13	29	-0.02	40	-0.2	6	29	30	25	29	-	12	4.5x8.05x4.4
LMF/K/H12UU	21		30		42		6	32	32	27	32	-	12	4.5x8.05x4.4
LMF/K/H13UU	23		32		43		6	33	34	29	33	-	12	4.5x8.05x4.4
LMF/K/H16UU	28		37		48		6	38	37	34	31	22	12	4.5x8.05x4.4
LMF/K/H20UU	32	0 -16	42	0	54	-0.3	8	43	42	38	36	24	15	5.5x9.5x5.4
LMF/K/H25UU	40		59		62		8	51	50	46	40	32	15	5.5x9.5x5.4
LMF/K/H30UU	45		64		74		10	60	58	51	49	35	15	6.6x11.0x6.5
LMF/K/H35UU	52	0 -19	70	-0.03	82	0	10	67	64	-	-	-	20	6.6x11.0x6.5
LMF/K/H40UU	60		80		96		13	78	75	-	-	-	20	9.0x14.0x8.6
LMF/K/H50UU	80		100		116		13	98	92	-	-	-	20	9.0x14.0x8.6
LMF/K/H60UU	90	0 -22	110		134		18	112	106	-	-	-	25	11.0x17.5x10.8

FLANGE TYPE LINEAR BALL BUSHING



LMF(L)



LMK(L)

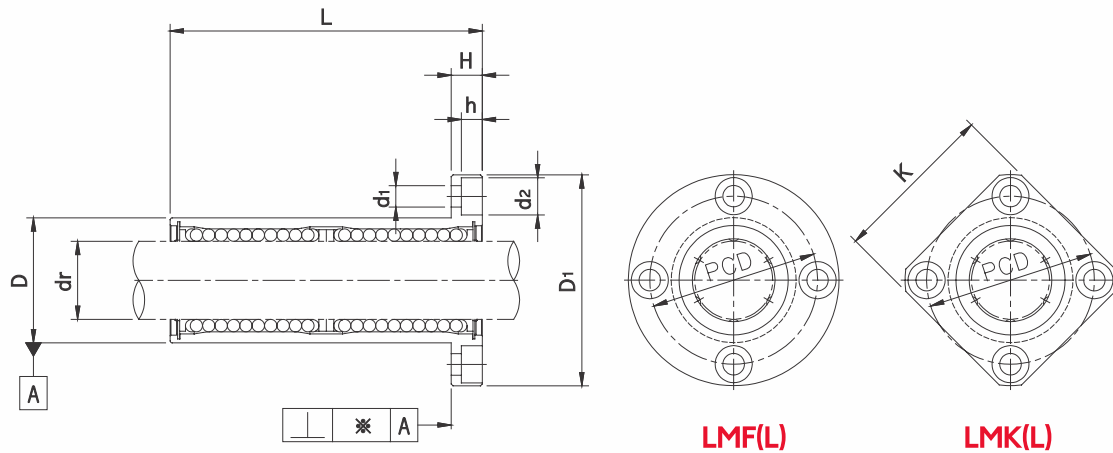
Unit: mm

Part No.		No. of Ball Circuit	Wgt. * (gf)	Allowable Diametral Clearance (μm)	Basic Load Ratings		Working Bore Diameter	
Circular Type	Square Type				Dyn C (N)	Stat Co (N)	Tol. (mm)	Tol. (μm)
LMF6LUU	LMK6LUU	4	31	-5	320	520	6	0 -10
LMF8SUU	LMK8SUU	4	53	-5	430	780	8	
LMF10LUU	LMK10LUU	4	105	-5	580	1100	10	
LMF12LUU	LMK12LUU	4	100	-5	650	1200	12	
LMF13LUU	LMK13LUU	4	130	-7	810	1570	13	
LMF16LUU	LMK16LUU	5	187	-7	1230	2350	16	
LMF20LUU	LMK20LUU	5	260	-9	1400	2750	20	0 -12
LMF25LUU	LMK25LUU	6	515	-9	1560	3140	25	
LMF30LUU	LMK30LUU	6	655	-9	2490	5490	30	
LMF35LUU	LMK35LUU	6	970	-13	2650	6470	35	0 -15
LMF40LUU	LMK40LUU	6	1560	-13	3430	8040	40	
LMF50LUU	LMK50LUU	6	3500	-13	6080	15900	50	
LMF60LUU	LMK60LUU	6	4500	-16	7650	20000	60	0 -20

Plating & Raydent treatment are available

* The value of Circular type

FLANGE TYPE LINEAR BALL BUSHING



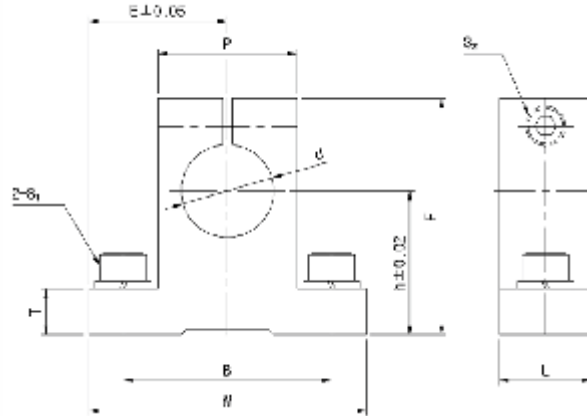
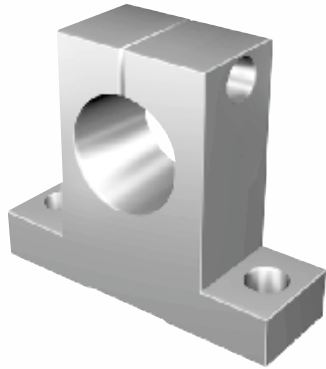
LMF(L)

LMK(L)

Unit: mm

Part No	Dimensions (mm)													
	D		L		B		H	PCD	K	W	A	F	Squareness (μm)	d ₁ x d ₂ x h
	(mm)	Tol. (μm)	(mm)	Tol. (μm)	(mm)	Tol. (μm)								
LMF6UU	12	0	35	0 -0.03	28	0 -0.2	5	20	22	18	20	-	15	3.4x6.5x3.3
LMF8SUU	15	-13	45		32		5	24	25	21	24	-	15	3.4x6.5x3.3
LMF10LUU	19	0 -16	55		40		6	29	30	25	29	-	15	4.5x8.05x4.4
LMF12LUU	21		57		42		6	32	32	27	32	-	15	4.5x8.05x4.4
LMF13LUU	23		61		43		6	33	34	29	33	-	15	4.5x8.05x4.4
LMF16LUU	28	70	48		6		38	37	34	31	22	22	15	4.5x8.05x4.4
LMF20LUU	32	80	54		8		43	42	38	36	24	24	20	5.5x9.5x5.4
LMF25LUU	40	0 -16	112	0 -0.04	62	0 -0.3	8	51	50	46	40	32	20	5.5x9.5x5.4
LMF30LUU	45	123	74		10		60	58	51	49	35	35	20	6.6x11.0x6.5
LMF35LUU	52	135	82		10		67	64	-	-	-	-	25	6.6x11.0x6.5
LMF40LUU	60	0 -19	154		96		13	78	75	-	-	-	25	9.0x14.0x8.6
LMF50LUU	80	192	116		13		98	92	-	-	-	-	25	9.0x14.0x8.6
LMF60LUU	90	0 -22	211	134	18	112	106	-	-	-	25	11.0x17.5x10.8		

SHAFT SUPPORT END BLOCK FOR A PLANE (WK)

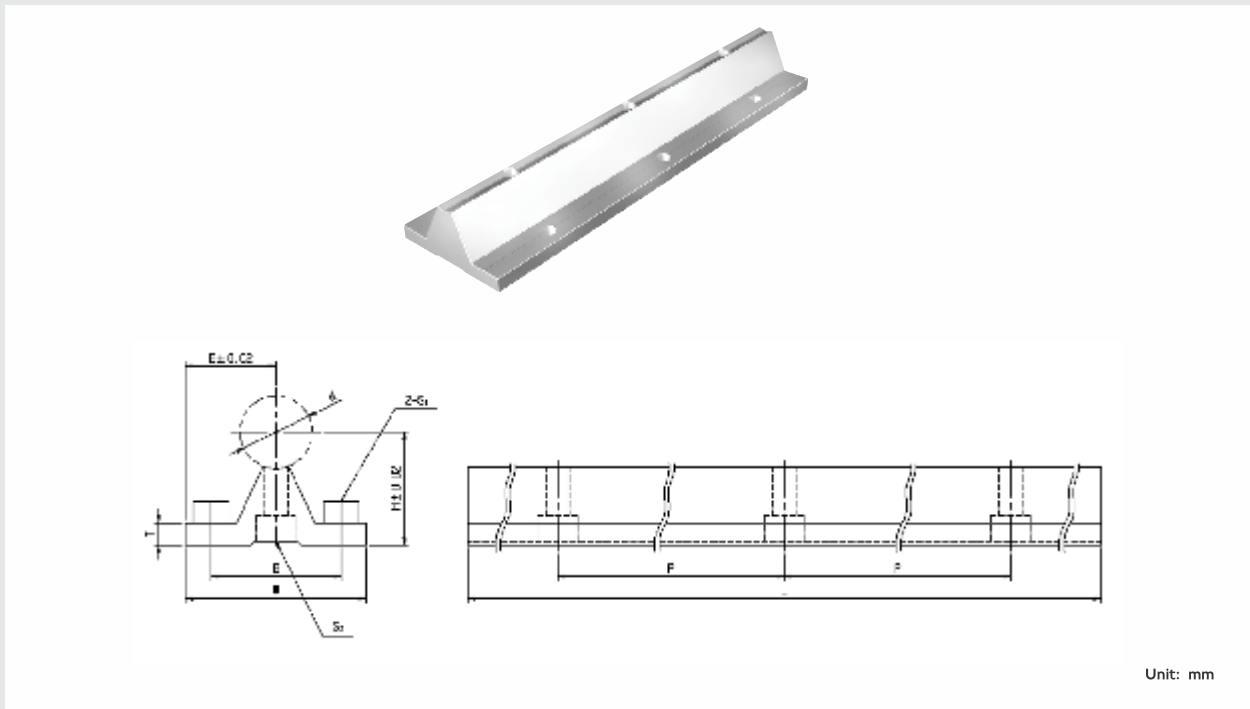


Unit: mm

Part No.	Shaft d	Dimensions								Tightening up Bolt S ₁	Holding down Bolt S ₂
		h	E	W	L	F	T	P	B		
WK 10	φ10	20	21	42	14	32.8	6	18	32	M 5	M 4
WK 12	φ12	23	21	42	14	38.0	6	20	32	M 5	M 4
WK 13	φ13	23	21	42	14	38.0	6	20	32	M 5	M 4
WK 16	φ16	27	24	48	16	44.0	8	25	38	M 5	M 4
WK 20	φ20	31	30	60	20	51.0	10	30	45	M 6	M 5
WK 25	φ25	35	35	70	24	60.0	12	38	56	M 6	M 6
WK 30	φ30	42	42	84	28	70.0	12	44	64	M 8	M 6
WK 35	φ35	50	49	98	32	82.0	15	50	74	M10	M 8
WK 40	φ40	60	57	114	36	96.0	15	60	90	M10	M 8

● Material : Alumium A 6061

SHAFT SUPPORT RAIL II (STU)

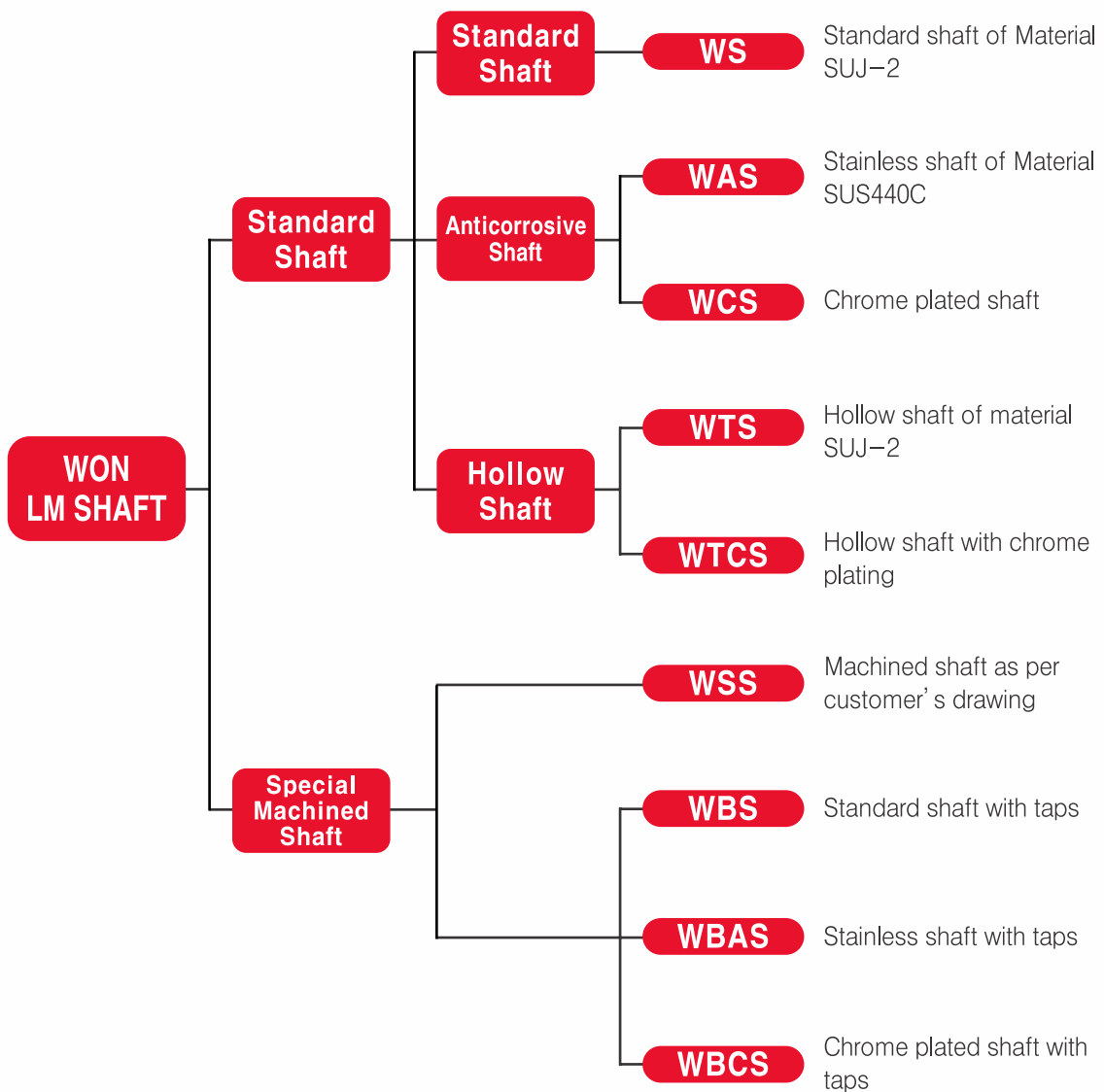


- Application of Block SHO, CSO (Refer to P. A-14, A-23)

Part No.	Shaft d	Dimensions							Mounting Dimensions			
		H	E	W	L	T	h ₁	θ	B	P*	S ₁	S ₂
STU16	φ16	27	21.0	42	Max length 3m · Effective for long stroke application	06	07	50°	31	150	M5	M5
STU20	φ20	31	25.0	50		06	07	50°	36	150	M6	M6
STU25	φ25	36	26.5	53		07	09	50°	39	200	M6	M6
STU30	φ30	43	33.5	67		08	11	50°	49	200	M8	M8
STU40	φ40	55	37.0	74		11	14	50°	56	300	M8	M8

Note) P* can be changed for customer requirement

Type of LM Shaft



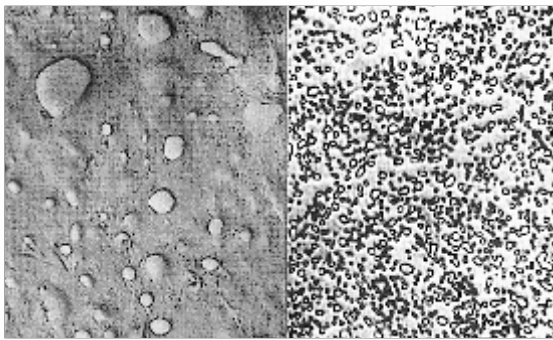
Heat Treatment

WON 'WON SHAFT PRECISION CO.' supplies the exact and stable high frequency induction heat treatment by our own exclusive equipment for LM Shaft heat-treatment. The heat-treatment by tempering assures the LM Shafts uniform hardness in both radial and axial directions, developing an appropriate hardened layer.

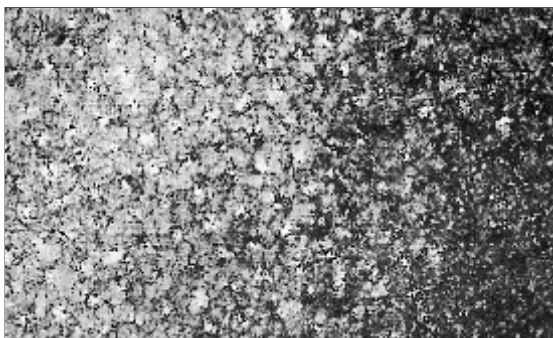
■ Surface Hardness

- STB-2 ... HRC60 ~ HRC64
- SUS440C ... HRC58 ~ HRC62

● Organization photographs

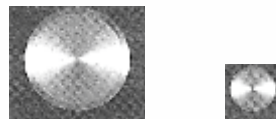
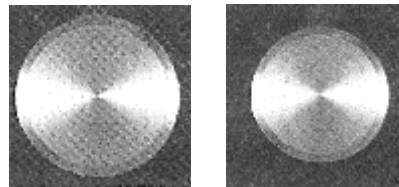


Spheroidizing Organizatron

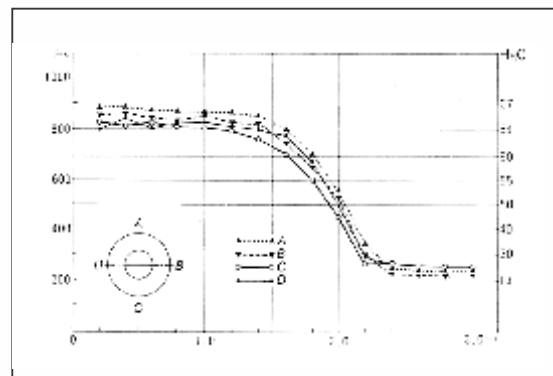


The cross-section of highfrequency induction heat-treatment

● Photograph of Effective hardened layer



● Hardness distribution curve (φ20)

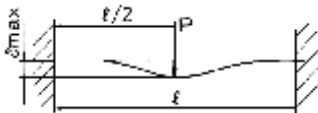
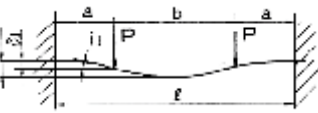
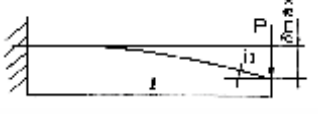


Precision

Diameter tolerance	Surface finish	Straightness
g6, h6, h5(mainly)	1.5 μ m Rmax less	20mm / 300mm less

Equation for Deflection-Angle of LM Shaft

WON CO., LTD.'s supplies the exact and stable high frequency induction heat treatment by our own exclusive equipment for LM Shaft heat-treatment. The heat-treatment by tempering assures the LM Shafts uniform hardness in both radial and axial directions, developing an appropriate hardened layer.

No.	Supporting method	Specified conditions	Deflection equation	Deflection angle equation
1	Both ends fixing		$\delta_{max} = \frac{Pl^3}{192EI} = \frac{1}{4} \times Pl^3 C$	$i_1 = 0$ $i_2 = 0$
2	Both ends fixing		$\delta_1 = \frac{Pa^3}{6EI} \left(2 - \frac{3a}{l}\right) = 8Pa^3 \left(2 - \frac{3a}{l}\right) C$ $\delta_{max} = \frac{Pa^3}{24EI} \left(2 + \frac{3b}{a}\right) = 2Pa^3 \left(2 + \frac{3b}{a}\right) C$	$i_1 = \frac{Pa^2b}{2EI \cdot l} = \frac{24Pa^2bC}{l}$ $i_2 = 0$
3	One end fixing		$\delta_{max} = \frac{Pl^3}{3EI} = 16Pl^3 C$	$i_1 = \frac{Pl^2}{2EI} = 24Pl^2 C$ $i_2 = 0$

δ_1 : Deflection at loaded point (mm)
 i_2 : Deflection angle at supporting point
 I : Geometrical moment of inertia (mm⁴)
 a, b : Loading point distance
 P : Concentrated load (kgf)

δ_{max} : Maximum deflection (mm)
 E : Modulus of direct elasticity 2.1×10^4 (kgf/mm²)
 i_1 : Deflection angle at loading point
 l : Span (mm)
 C : $1/48EI$ (1/kgf · mm²)

IKO QUICK LINEAR INTERCHANGE CHART

IKO SERIES	IKO	THK	NSK	HIWIN	INA	STAR	NB	THOMSON	SCHNEEBERGER
LWH - Ball	LWH...B	HSR...B, CB	LH...FL	LGW-CB		1651		AG...AA or AT...A	
	LWHG	HSR...LB, HB	LH...HL	LGW-HB	KUSE...L	1653		AG...BA	
	LWHT...B	HSR...A, CA	LH...EL	LGW-CA	KUVE	1651		AG...AA or AT...A	BMA
	LWHTG	HSR...LA, HA	LH...GL	LGW-HA	KUVE...L/KUSE...L	1653		AG...BA	BMB
	LWHD...B	HSR...R	LH...AN	LGH-CA	KUSE...H/KUVE...H	1621		AG...EE,T	BMC
	LWHDG	HSR...LR	LH...BN	LGH-HA	KUVE...HL	1624		-	BMD
	LWHS...B	SHS...L	LY...AL,AN		KUSE...J,HL	1622		AG...CE,EE,T	
	LWHSG	SHS...LV	LY...BL,BN	LGH...HA	KUSE...HL	1623		AG...DE,HE	
LWHY	HSR...YR								
LWE - Ball	LWEC	SR...SB	LS...KL	AGW-SB			SGL...E		
	LWE	SR...TB	LS...FL	AGW-CB			SGL...TE	AT...G	
	LWEG								
	LWETC		LS...JL			1661	SGL...E		
	LWET		LS...EL	AGW-CA		1693	SGL...TE	AT...G	
	LWETG								
	LWESC	SR...V	LS...CL	AGH-SA		1666	SGL...F		
	LWES	SR...W	LS...AL	AGH-CA		1622/1694	SGL...TF	AT...F/AG...CE	
LWESG									
LWE...Q	SSR								
LWL - Ball	LWLC								MN
	LWL	RSR...M,K,V or Z	LU...AL or TL	MGN...C	KUME	0442	SEBS...A		MN
	LWLG	RSR...N	LU...BL	MGN...H			SEBA...AY		MN
	LWLF		LE...CL				-		MN
	LWLF	RSR...W, M or Z	LE...AL or TL	MGW...C	THDM...W/KWEM...W	0443	SEBS...WA		MN
LWLF	RSR...WN	LE...BL	MGW...H			SEBA...WAY		MN	
LWF - Ball	LWFH	HRA							-
	LWFF	HRW...CA	LW...EL			1671			-
	LWFS	HRW...CR							-
LRX - Roller	LRXC								-
	LRX		RA...EM		RUE...D	1851			MRA
	LRXG	SRG-LC	RA...GM		RUE...DL	1853			MRB
	LRXDC								
	LRXD		RA...AN		RUE...DH	1821			MRC
LRXDG	SRG-LR(V)	RA...BM		RUE...DHL	1824			MRD	
CRW - Roller	CRW	VR	CRG						
	CRWU	VRU							
LSA - Ball	LSAG	LMT							
	LSAGT	LMT...K							
	LSAGF	LTF							
	LSAGFT	LTF...K							

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- 2 - BMG offers automation & application help for you and your customer's projects.
- 3 - Coatings: Polymeric Flouride - solid lubricant, Dicronite - dry film lubricant, Armoloy - corrosion & friction reduction, (Raydent) Black Chrome - Corrosion, Flouride Black Chrome - corrosion & adhesion resistance.

IKO QUICK LINEAR INTERCHANGE CHART

ARTICLE	IKO EQUIVALENT (resin cages)	WON EQUIVALENT (metal)
LBB 4	LMB 4812	
LBB 6	LMB 61014	
LBB 8	LMB 81420	
LBB 8 OP	LMB 84120 OP	
LBB 10	LMB 101824	
LBB 10 OP	LMB 101824 OP	
LBB 12	LMB 122026	
LBB 16	LMB 162536	
LBB 16 AJ	LMB 162536 AJ	
LBB 16 OP	LMB 162536 OP	
LBB 20	LMB 203242	
LBB 20 AJ	LMB 203242 AJ	
LBB 24	LMB 243848	
LBB 24 OP	LMB 243848 OP	
LBB 32	LMB 324864	

ARTICLE	IKO EQUIVALENT (resin cages)	WON EQUIVALENT (metal)
LBD6	LM 61219	
LBD6 UU	LM 61219 UU	LM 6 UU
LBD8	LM 81524	
LBD8 S	LM 81517	
LBD8 S UU	LM 81517 UU	LM 8 SUU
LBD8 UU	LM 81524 UU	LM 8 UU
LBD10	LM 101929	
LBD10 UU	LM 101929 UU	LM 10 UU
LBD13	LM 132332	
LBD16	LM 162837	
LBD16 AJ	LM 162837 AJ	
LBD16 UU	LM 162837 UU	LM 16 UU
LBD16 UUOP	LM 162837 UUOP	LM 16 UUOP
LBD20	LM 203242	
LBD20 UU	LM 203242 UU	LM 20 UU
LBD20 UUOP	LM 203242 UUOP	LM 20 UUOP
LBD25	LM 254059	
LBD25 UU	LM 254059 UU	LM 25 UU
LBD30	LM 304564	
LBD30 UU	LM 304564 UU	LM 30 UU
LBD35 UU	LM 355270 UU	LM 35 UU
LBD40	LM 406080	
LBD40 UU	LM 406080 UU	LM 40 UU
LBD40 UUOP	LM 406080 UUOP	LM 40 UUOP
LBD50	LM 5080100	
LBD50 UU	LM 5080100 UU	LM 50 UU

ARTICLE	IKO EQUIVALENT (resin cages)	WON EQUIVALENT (metal)
LBE5	LME 51222	
LBE8	LME 81625	
LBE8 UU	LME 81625 UU	LME 8 UU
LBE8 UUAJ	LME 81625 UUAJ	LME 8 UUAJ
LBE12	LME 122232	
LBE12 AJ	LME 122232 AJ	
LBE12 UU	LME 122232 UU	LME 12 UU
LBE12 UUAJ	LME 12232 UUAJ	LME 12 UUAJ
LBE12 UUOP	LME 12232 UUOP	LME 12 UUOP
LBE16	LME 162636	
LBE16 AJ	LME 162636 AJ	
LBE16 OP	LME 162636 OP	
LBE16 UU	LME 162636 UU	LME 16 UU
LBE16 UUAJ	LME 162636 UUAJ	LME 16 UUAJ
LBE16 UUOP	LME 162636 UUOP	LME 16 UUOP
LBE20	LME 203245	
LBE20 AJ	LME 203245 AJ	
LBE20 OP	LME 203245 OP	
LBE20 UU	LME 203245 UU	LME 20 UU
LBE20 UUAJ	LME 203245 UUAJ	LME 20 UUAJ
LBE20 UUOP	LME 203245 UUOP	LME 20 UUOP
LBE25	LME 254058	
LBE25 AJ	LME 254058 AJ	
LBE25 OP	LME 254058 OP	
LBE25 UU	LME 254058 UU	LME 25 UU
LBE25 UUAJ	LME 254058 UUAJ	LME 25 UUAJ
LBE25 UUOP	LME 254058 UUOP	LME 25 UUOP
LBE30	LME 304768	
LBE30 UU	LME 304768 UU	LME 30 UU
LBE30 UUAJ	LME 304768 UUAJ	LME 30 UUAJ
LBE30 UUOP	LME 304768 UUOP	LME 30 UUOP
LBE40	LME 406280	
LBE40 UU	LME 406280 UU	LME 40 UU
LBE40 UUAJ	LME 406280 UUAJ	LME 40 UUAJ
LBE40 UUOP	LME 406280 UUOP	LME 40 UUOP
LBE50	LME 5075100	
LBE50 UU	LME 5075100 UU	LME 50 UU
LBE50 UUAJ	LME 5075100 UUAJ	LME 50 UUAH
LBE50 UUOP	LME 5075100 UUOP	LME 50 UUOP

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