直线轴承系列
Linear Bearing Ball Bearing Series

结构和优点
Structure and Features

● MYT直线轴承由外圈、钢球、保持架和挡圈组成。保持架能将钢球约束在循环轨道中，挡圈将保持架固定在外圈中。
● 这些零件组装在一起便使轴承具有最佳的功能。
● 外圈经热处理后，具有足够的硬度，从而保证其足够的行走寿命和满意的承载能力。
● 保持架用钢或尼龙制作。用户可根据使用条件从中选择。

● The MYT linear motion bearing consists of an outer cylinder, ball retainer, balls and two end rings. The ball retainer which holds the balls in the recirculating trucks in held inside the outer cylinder by end rings.

● Those parts are assembled to optimize their required functions.

● The outer cylinder is maintained sufficient hardness by heat treatment, therefore it ensures the bushings projected travel life and satisfactory durability.

● The ball retainer is made from steel or resin. The steel retainer has high rigidity obtained by heat treatment. The user can select the optimum type for meeting the users service conditions.

1. 高精度和刚性 High Precision and Rigidity

MYT直线轴承外圈是钢制的坚固的外圆柱型，保持架为轧制钢板或具有工业强度的尼龙制成。

The MYT linear motion bearing is produced from a solid steel outer cylinder. Also the linear motion bearing incorporates either a patented all steel hardend seamless ball retainer or an industrial strength resin ratainen.

2. 易于安装 Ease of Assembly

普通型的直线轴承可以作任何方向安装，仅使用轴为支撑便可精确地工作。安装表面也易于加工。MYT提供能安装各种类型直线轴承的各种各样的轴承座，给设计和安装提供了方便。

The standard type of MYT linear motion bearing can be loaded from any diraction. Precision control is possible using only the shaft supporter, and the mounting surface can be machined easily. MYT also provides a variely of housings for all types of slide bushings, offering convenience of design and assembly.

3. 易于更换 Ease of Replacement

由于直线轴承尺寸标准化和高的加工精度，故每一套轴承都具有互换性，由于磨损和损坏而需更换轴承是很方便的。

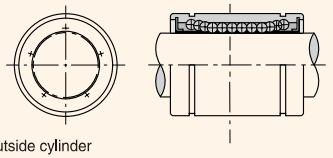
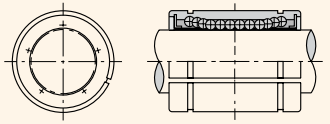
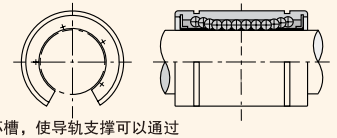
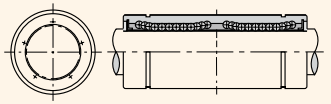
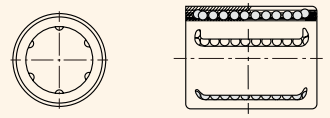
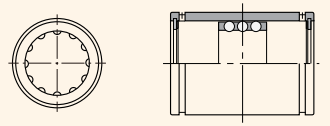
MYT linear motion bearing of each type are completely interchangeable because of their standardized dimensions and strict precision control. Replacement because of wear or damage is therefore easy and accurate.

4. 品种齐全 Variety of Types

MYT直线轴承型号齐全，有普通型、间隙调整型、开口型、加长型和带法兰型，用户可以根据需要从中选择。

MYT offers a full line of linear motion bearing: the standard, integral single–retainer closed type, the clearance adjustable type and the open. double–retainer, and flanged types. The user can choose from among these according to the application requirements to be met.

直线轴承的类型　Type of Linear Motion Ball Bearings

类 型 Type	结 构 Description	材 料 Material 外圈 Outer cylinder	保持架 Retainer
标准型 Standard Type 	 封闭外圈型 Closed type outside cylinder	钢 Steel	钢 Steel / 尼龙 Resin
间隙调整型 Adjustable Type 	 外径带开缝，可以调整间隙 This type has a slot in the outside cylinder. This design allows for clearance adjustment.	钢 Steel	钢 Steel / 尼龙 Resin
开口型 Open Type 	 切掉一组循环槽，使导轨支撑可以通过 One ball circuit is removed to allow an opening slot to fit over rail supports.	钢 Steel	钢 Steel / 尼龙 Resin
加长型 Double–Wide Type 	 有两个保持架，适用于有力矩负荷场合 This type has two retainers in the outside cylinder. This structure is useful when momentloads are applied to the slide bush.	钢 Steel	钢 Steel / 尼龙 Resin
冲压外圈型 Pressing Outer Race Type 	 外圈是冲压的 Outer race is pressing	钢 Steel	尼龙 Resin
行程轴承 Stroke Bearing 	 封闭外圈型 Closed type outside cylinder	钢 Steel	铝 Aluminum

直线轴承的代号
Type Number Format

LM 25 L A UU AJ

类型 Type

LM	公制，亚洲应用广泛 Metric dimension series most widely used in Asia
LME	公制，主要是欧洲使用 Metric dimension series generally used in Europe
LMB	英制，主要是美洲使用 Inch dimension series used mainly in America

公称轴径 Nominal Shaft Diameter

加长 Double type

符号 Symbol	代表意义 Specification
不标 No entry	标准型 Standard type
L	加长型 Double type

A 镀镍 Nickle plated

符号 Symbol	代表意义 Specification
不标 No entry	标准型 Standard type
AJ	间隙调整型 Adjustable type
OP	开口型 Open type

密封 Seal

符号 Symbol	代表意义 Specification
不标 No entry	不带密封 No seal
U	单密封 Seals on one side
UU	双密封 Seals on both sides

公差
Tolerance

● MYT直线轴承有普通型和精密型两种，在样本中有标明。需要说明的是对于间隙调整型（…–AJ）和开口型（…–OP）的钢球总体内径和外径的公差是在切口之前测量的。

● The MYT linear motion ball bearing are divided into high class and precision class, indicated in the dimension tables. Note that precision of inscribed circle diameters and outside diameters for the clearance adjustable type (…–AJ) and the open type (… –OP) indicates the value obtained before the corresponding type is subjected to cutting process.

额度负荷和寿命估算
Load Rating and Life Expeatancy

● 直线轴承的额定寿命可以根据轴承的额定动负荷和工作负荷利用下式计算出：

● The rated life (L) of a slide bush can be obtained from the following equation with the basic dynamic load rating and the load applied to the slide bush:

$$L=\left(\frac{f_H\cdot f_T\cdot f_C}{f_W}\cdot\frac{C}{P}\right)^3\cdot 50 \qquad (1)$$

L: 额定寿命 Raled life (km)
C: 基本额定动负荷
Basic dynamic load rating (N)
P: 工作负荷 Working load (N)
fw: 负荷系数 Load coefficient
fH: 硬度系数 Hardness factor
fT: 温度系数 Temperature coefficient
fc: 接触系数 Contact coefficient

● 直线轴承的时间寿命可以根据每分钟行走距离进行计算.
● 如果行程长度、往复次数恒定，则时间寿命可用下式计算出。

● The lifespan (L_h) of a slide bush in hours can be obtained by calculating the traveling distance per unit tine.
● The lifespan can be obtained from the following equation if the stroke length and the number of strokes are constant:

$$L_h=\frac{L\cdot 10^3}{2\cdot \ell_s\cdot n_1\cdot 60} \qquad (2)$$

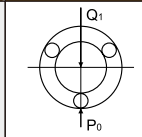
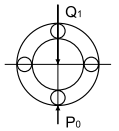
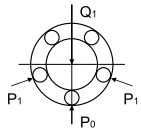
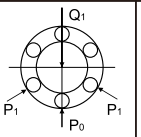
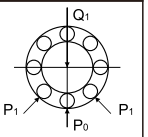
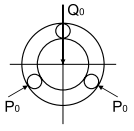
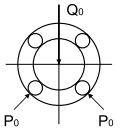
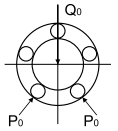
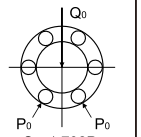
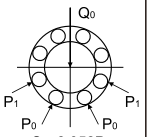
L_h: 时间寿命 Lifespan (hr)
L: 额定寿命 Rated life (km)
ℓ_s: 行程长度 Stroke length (m)
n1: 每分钟往复数 Number of strokes per minute (CPM)

钢球列数与额定负荷的关系
Relation between ball circuits and load rating

● MYT直线轴承的几组钢球在圆周上是均匀分布的，负荷在圆周上作用点的位置不同则轴承的额定负荷也不同。产品样本上的额定负荷是负荷正对着一组钢球时的数值。如果负荷是作用在二组球道正中间，则额定负荷会大一些，下表列出了不用球列数的额定负荷的各种情况：

● The MYT linear motion ball bearing includes ball Circuits that are spaced equally and circumferentially. The load rating varies according to the loaded position on the circumference. The value in the dimension table indicates the load rating when the load is placed on top of one ball circuit. If the MYT Slide bush is used with two ball circuits loaded uniformly. The load rating will be greater. The following table shows the values by the number of ball circuits in such cases:

表1 Table 1

作用位置 Row position / 额定负荷 Load ratio \ 钢球列数 Number of rows	3	4	5	6	8
作用位置 Row position	 Q1=P0	 Q1=P0	 Q1=1.106P0	 Q1=1.354P0	 Q1=1.841P0
作用位置 Row position	 Q0=P0	 Q0=1.414P0	 Q0=1.618P0	 Q0=1.732P0	 Q0=2.052P0
额定负荷 Load ratio	Q0/Q1=1	Q0/Q1=1.414	Q0/Q1=1.463	Q0/Q1=1.280	Q0/Q1=1.115

计算实例
Sample Calculations

① 根据下列条件计算轴承额定寿命：
Obtaining the rated life Land lifespan Lh of the right slide bush used in the following conditions:

轴承型号 Slide bush: LM20
行程长度 Stroke length：50mm
每分钟往复数 Number of strokes per minute: 50次/分(cpm)
每套轴承承受负荷 Load per bush：490N
从产品样本中查得LM–20额定动负荷为882N，
额定寿命用下式算出：
The basic dynamic load rating of the slide bush is 882N from the dimension table. From equation (1), therefore, the rated life L is obtained as follows:

$$L=\left(\frac{f_H\cdot f_T\cdot f_C}{f_W}\cdot\frac{C}{P}\right)^3\cdot 50 \qquad f_H=f_T=f_C=f_W=1.0$$
$$=\left(\frac{882}{490}\right)^3\times 50=292\text{km}$$

根据式(2)，时间寿命计算如下：
From equation(2)，the lifespan Lh is obtained as follows

$$L_h=\frac{L\times 10^3}{2\times \ell_s\times n_1\times 60}=\frac{292\times 10^3}{2\times 0.05\times 50\times 60}=973\text{hr}$$

② 根据下列使用条件选择轴承：
Selecting the slide bush type satisfying the following conditions：
设备安装的直线轴承数量 Number of slide bushes used：4套
行程长度 Stroke length：1米（m）
行走速度 Traveling speed：10米/分钟（m/min）
往复次数 Number of strokes per minute：5次/分钟（cpm）
时间寿命 Lifespan：10,000小时,（hr）
总负荷 Total load：980N
根据式（2），行走寿命可以从时间寿命中换算出：

From equation(2), the traveling distance within the lifespan is obtained as follows:

$$L=\frac{2\times \ell_s\times n_1\times 60\times L_h}{10^5}=6{,}000\text{km}$$

假设使用二根轴，每根轴装二套直线轴承：
Assume the following with a pair of shafts each with two slide bushes:

$$f_C=0.81,\quad f_W=f_T=f_H=1$$

根据式(1)，额定动负荷计算如下：
From equation(1), the basic dynamic load rating is obtained as follows:

$$C=\sqrt[3]{\frac{L}{50}}\cdot\left(\frac{f_W}{f_H\ f_T\ f_C}\right)\cdot P=1492\text{N}$$

结果从样本中选LM30便可满足额定动负荷的要求。
As a result. LM30 is selected from the dimension table as the right slide bush type satisfying the value of C.

间隙和配合
Clearance and Fit

● 当一套标准型的直线轴承装到轴上时，间隙不合适会使轴承过早地破坏、失效或运行不平衡。调整型和开口型直线轴承装到可以控制外径尺寸的轴承座中，可以调整其间隙。然而过大的间隙调整会增加外圈的变形，影响精度和寿命。因此轴承与轴之间的间隙，外径与轴承座孔之间的间隙应根据使用条件来决定。表2为推荐的配合。

● When a standard–type MYT slide bush is used with a shaft, inadequate clearance adjustment may cause early bush failure and/or poor, rough traveling.

The clearance adjustable slide bush and open slide bush can be clearance adjusted when assembled in the housing which can control the outside cylinder diameter. However, too much clearance adjustment increases the deformation of the outside cylinder, to affect its precision and life. Therefore, the appropriate clearance between the bush and shaft, and clearance between the bush and housing are required according to the application. Table 2 shows recommended fit of the bush:

表2 Table 2

模型 Model / 类别 Division		轴 Shaft		轴承座 Housing	
		一般配合 Normal fit	紧配合 Transitiona fit	较松配合 Loose fit	较紧配合 Tight fit
LM	High class	g6	h6	H7	J7
LMB	Precision class	g5	h5	H6	J6
LME	High class	h6	j6	H7	J7
ST	Precision class	g6, k5, m5	n5, p6	H6, H7	J6, J7

注：间隙可以为零，也可以为负值，请注意运行情况 Note: The clearance may be zero or negative, Please attention the movement

轴和轴承座
Shaft and Housing

●为了使直线轴承发挥最佳的性能，必须使用高精度的轴和轴承座。

● To optimize performance of the MYT slide bush, high precision of the shaft and housing is required.

1. 轴 Shaft

MYT直线轴承的钢球与轴的表面是点接触，因此轴的尺寸、公差、表面粗糙度和硬度极大的影响轴承运作性能，轴的生产应注意以下几点：

The rolling balls in the MYT slide bush are in point contact with the shaft surface. Therefore, the shaft dimensions, tolerance, surface finish, and harness greatly affect the traveling performance of the bush. The shaft should be manufactured with due attention to the following points:

1) 因为表面粗糙度极大的影响运作的平稳性，因此轴表面粗糙度应达到Ra0.4或更好。

Since the surface finish critically affects smooth rolling of balls, grind the shaft at 0.4 S or better.

2) 最佳硬度是HRC 60~64，硬度低于HRC 60 会明显地降低寿命，故而降低了承载能力。另一方面，硬度超过HRC 64，会加速轴承钢球的磨损。

The best hardness of the shaft is HRC 60 to 64. Hardness less than HRC 60 decreases the life considerably, and hence reduces the permissible load. On the other hand, harness over HRC 64 accelerates ball wear.

3) 对间隙调整型和开口型直线轴承，其轴的直径应尽可能地低于产品样本中规定的钢球总体内径公差的下限，不得使轴的尺寸处于公差的上限。

The shaft diameter for the clearance adjustable slide bush and open slide bush should as mush as possible be of the lower value of the inscribed circle diameter in the specification bable. Do not set the shaft diameter to the upper value.

4) 零间隙和负间隙会使摩擦阻力有所增加。如果负间隙过大，加速了外圈的变形，从而降低轴承的寿命。

Zero clearance or negative clearance increases the frictional resistance slightly. If the negative clearance is too tight, the deformation of the outside cylinder will become larger, to shorten the bush life.

MYT直线轴承在尺寸公差、表面粗糙度和硬度方面都严格的控制，是直线轴承配套的理想的轴。详见样本光轴部分。

The MYT slide shaft is an ideal bush slide shaft manufactured in due consideration of dimensional tolerance, surface finish, and hardness. For details refer to the section on slide shafts.

2. 轴承座 Housing

我们轴承座有不同的结构，加工方法和安装方法可供用户选择。对于这些轴承座的配合和形状见表2。

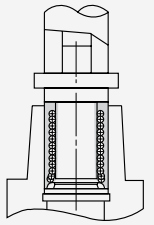
We provide a wide range of housings differing in design, machining and mounting. For the fitness and shapes of housings, see Table 2 and the following section on mounting.

安装
Mounting

● 将直线轴承安装到轴承座孔中，不要敲打两端的挡圈(密封圈)，而是用手将其推入或轻轻地敲打(见图1)。轴承安装到轴承座中之后再仔细地将光轴插入，注意不要碰击钢球。如果同时使用二根平行的轴，则轴的平行度对保证轴承的平稳运行是非常重要的，一定要仔细地安装。

● When inserting the slide bush into the housing, do not hit the slide bush on the side ring holding the retainer but apply the cylinder circumference with a proper jig and push the slide bush into the housing by hand or lightly knock it in. (See Fig. 1) In inserting the shaft after mounting the bush, be careful not to shock the balls. Note that if two shafts are used in parallel, the parallelism is the most important factor to assure the smooth linear movement. Take care in setting the shafts.

Fig.1



安装实例
Examples of Mounting

● 通常的安装方法是将轴承推入座孔时阻力要适宜，然而我们建议尽量采用较松的配合，否则轴承的精度会下降。

● 图2~图6介绍了几种安装结构和固定方法供参考。

● The popular way to mount a slide bush is to operate it with an appropriate interference. It is recommended, however, to make a loose fit in principle because otherwise precision is apt to be minimized. The following examples (Fig. 2 to 6) show assembling of the inserted bush in terms of designing and mounting, for reference.

Fig.2

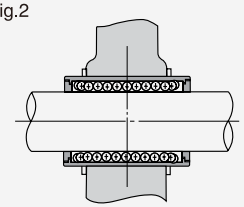


Fig.3

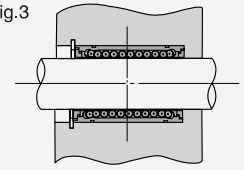


Fig.4

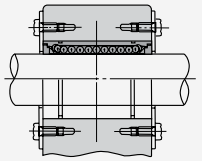


Fig.5

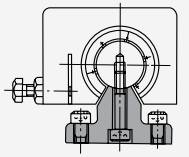
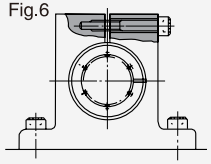


Fig.6

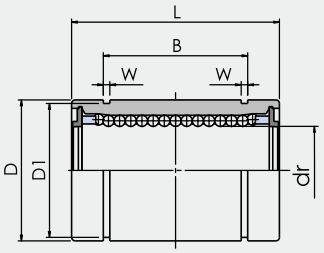


LM···UU 尼龙保持架
该类型尺寸是公制的，广泛应用于亚洲和其它国家。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LM···UU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickle plated according to customers' requirements, with function of rust–proof.

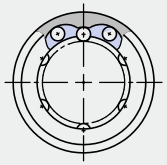

LM···UU


LM···UU–AJ

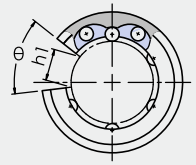

LM···UU–OP



LM···UU



LM···UU–AJ



LM···UU–OP

公称轴径 Nominal shaft diameter mm	尼龙保持架 Resin retainer									dr		
	标准型 LM···UU	钢球列数 Ball circuit	重量 Weight (g)	间隙调整型 LM···UU–AJ	钢球列数 Ball circuit	重量 Weight (g)	开口型 LM···UU–OP	钢球列数 Ball circuit	重量 Weight (g)	mm	公差 Tolerance μm 精密 Precision	公差 Tolerance μm 普通 Standard
3	LM3	4	1.35	—	—	—	—	—	—	3	0 –5	0 –8
4	LM4UU	4	1.9	—	—	—	—	—	—	4		
5	LM5UU	4	4	—	—	—	—	—	—	5		
6	LM6UU	4	7.6	LM6UU–AJ	4	7.5	—	—	—	6	0 –6	0 –9
8	LM8SUU	4	10.4	LM8SUU–AJ	4	10	—	—	—	8		
8	LM8UU	4	15	LM8UU–AJ	4	14.7	—	—	—	8		
10	LM10UU	4	29.5	LM10UU–AJ	4	29	LM10UU–OP	3	23	10		
12	LM12UU	4	31.5	LM12UU–AJ	4	31	LM12UU–OP	3	25	12		
13	LM13UU	4	43	LM13UU–AJ	4	42	LM13UU–OP	3	34	13		
16	LM16UU	5	69	LM16UU–AJ	5	68	LM16UU–OP	4	52	16		
20	LM20UU	5	87	LM20UU–AJ	5	85	LM20UU–OP	4	69	20	0 –7	0 –10
25	LM25UU	6	220	LM25UU–AJ	6	216	LM25UU–OP	5	188	25		
30	LM30UU	6	250	LM30UU–AJ	6	245	LM30UU–OP	5	210	30		
35	LM35UU	6	390	LM35UU–AJ	6	384	LM35UU–OP	5	335	35	0 –8	0 –12
40	LM40UU	6	585	LM40UU–AJ	6	579	LM40UU–OP	5	500	40		
50	LM50UU	6	1,580	LM50UU–AJ	6	1,560	LM50UU–OP	5	1,340	50		
60	LM60UU	6	1,860	LM60UU–AJ	6	1,820	LM60UU–OP	5	1,610	60	0 –9	0 –15
80	LM80UU	6	4,420	LM80UU–AJ	6	4,300	LM80UU–OP	5	3,650	80		
100	LM100UU	6	8,600	LM100UU–AJ	6	8,540	LM100UU–OP	5	7,200	100	0 –10	0 –20
120	LM120UU	8	15,000	LM120UU–AJ	8	14,900	LM120UU–OP	6	11,600	120		
150	LM150UU	8	20,250	LM150UU–AJ	8	20,150	LM150UU–OP	6	15,700	150	0/–13	0/–25
180	LM180UU	8	33,945	LM180UU–AJ	8	33,795	LM180UU–OP	6	29,702	180	0 –19	0 –30
200	LM200UU	8	42,360	LM200UU–AJ	8	42,180	LM200UU–OP	6	37,065	200		

主要尺寸和公差 Major dimensions and tolerance												偏心 Eccentricity μm		最大径向间隙 Radial clearance (Max) μm	额定负荷 Basic load rating	
D		L		B		W	D_1	h	h_1	Θ						
mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	mm	mm	mm			精密 Precision	普通 Standard		动负荷 Dynamic C N	静负荷 Static Co N
7	0 –9	10	0 –120	—	—	—	—	—	—	—		4	8	–3	69	105
8		12		—	—	—	—	—	—	—					88	127
10		15		10.2	0 –200	1.1	9.6	—	—	—					167	206
12	0 –11	19	0 –200	13.5		1.1	11.5	1	—	—					206	265
15		17		11.5		1.1	14.3	1	—	—					176	216
15		24		17.5		1.1	14.3	1	—	—					274	392
19	0 –13	29		22		1.3	18	1	6.8	80°		8	12	–4	372	549
21		30		23		1.3	20	1.5	8	80°					510	784
23		32		23		1.3	22	1.5	9	80°					510	784
28		37		26.5		1.6	27	1.5	11	80°				–6	774	1,180
32	0 –16	42		30.5		1.6	30.5	1.5	11	60°					882	1,370
40		59	0 –300	41	0 –300	1.85	38	2	12	50°		10	15		980	1.570
45		64		44.5		1.85	43	2.5	15	50°				–8	1,570	2,740
52	0 –19	70		49.5		2.1	49	2.5	17	50°		12	20		1,670	3,140
60		80		60.5		2.1	57	3	20	50°				–10	2,160	4,020
80		100		74		2.6	76.5	3	25	50°				–13	3,820	7,940
90	0 –22	110		85		3.15	86.5	3	30	50°		17	25		4,700	10,000
120		140	0 –400	105.5	0 –400	4.15	116	3	40	50°				–20	7,350	16,000
150	0 –25	175		125.5		4.15	145	3	50	50°		20	30		14,100	34,800
180		200		158.6		4.15	175	3	85	80°				–25	16,400	40,000
210	0/–29	240		170.6		5.15	204	3	105	80°		25	40		21,100	54,300
260	0 –30	280		210.6		5.15	254	3	125	80°		30		–30	25,800	59,000
280		320		250.6		5.15	274	3	140	80°					28,100	61,300

密封型 Seal type:
LM20 A UU

不标	不带密封	No entry	No seals
U	单密封	U	Seal on one side
UU	双密封	UU	Seal on both sides
A	镀镍	A	Nickle plated

注：小尺寸（3mm内径）无密封。
Note: Smaller sizes (3 mm I.D.) are non–seal type only.

* AJ、OP型外径D、内径dr的公差为开口前的尺寸。
* The tolerance of AJ/OP type outer diameter(D) and inner diameter(dr) is the dimensions before opening.

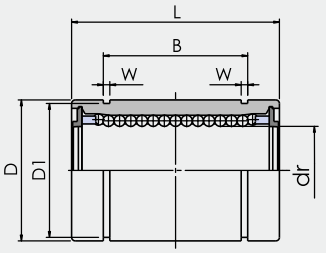
国际单位：1N≈0.102kgf
SIUNIT：1N≈0.102kgf

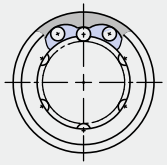
LM…GS 耐高温保持架
该类型尺寸是公制的，广泛应用于亚洲和其它国家。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LM…GS (High–temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickle plated according to customers' requirements, with function of rust–proof.

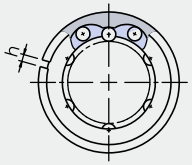

LM…GS


LM…GS–AJ

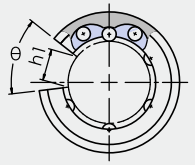

LM…GS–OP




LM…GS



LM…GS–AJ



LM…GS–OP

公称轴径 Nominal shaft diameter mm	钢保持架 Steel retainer									dr	
	标准型 LM…GS	钢球列数 Ball circuit	重量 Weight (g)	间隙调整型 LM…GS–AJ	钢球列数 Ball circuit	重量 Weight (g)	开口型 LM…GS–OP	钢球列数 Ball circuit	重量 Weight (g)	mm	公差 Tolerance μm 精密 Precision	公差 Tolerance μm 普通 Standard
3	LM3GS	4	1.35	—	—	—	—	—	—	3	0 –5	0 –8
4	LM4GS	4	1.9	—	—	—	—	—	—	4		
5	LM5GS	4	5.5	—	—	—	—	—	—	5		
6	LM6GS	4	8.9	LM6GS–AJ	4	8.8	—	—	—	6	0 –6	0 –9
8	LM8GS	4	17.3	LM8GS–AJ	4	17	—	—	—	8		
10	LM10GS	4	32	LM10GS–AJ	4	31.5	LM10GS–OP	3	24	10		
12	LM12GS	4	36.7	LM12GS–AJ	4	36.2	LM12GS–OP	3	27.5	12		
13	LM13GS	4	50	LM13GS–AJ	4	49	LM13GS–OP	3	37.5	13		
16	LM16GS	4	86	LM16GS–AJ	4	85	LM16GS–OP	4	68.8	16		
20	LM20GS	5	112	LM20GS–AJ	5	110	LM20GS–OP	4	89.6	20	0 –7	0 –10
25	LM25GS	5	282	LM25GS–AJ	5	278	LM25GS–OP	5	235	25		
30	LM30GS	6	326	LM30GS–AJ	6	321	LM30GS–OP	5	271.7	30		
35	LM35GS	6	489	LM35GS–AJ	6	483	LM35GS–OP	5	407.5	35	0 –8	0 –12
40	LM40GS	6	730	LM40GS–AJ	6	724	LM40GS–OP	5	608.3	40		
50	LM50GS	6	1,580	LM50GS–AJ	6	1,560	LM50GS–OP	5	1,340	50		
60	LM60GS	6	1,860	LM60GS–AJ	6	1,820	LM60GS–OP	5	1,610	60	0 –9	0 –15
80	LM80GS	6	4,420	LM80GS–AJ	6	4,300	LM80GS–OP	5	3,650	80		
100	LM100GS	6	8,600	LM100GS–AJ	6	8,540	LM100GS–OP	5	7,200	100	0/–10	0/–20

LM20 A GS

GS	钢保持架	GS	Steel retainer
A	镀镍	A	Nickle plated

主要尺寸和公差 Major dimensions and tolerance												偏心 Eccentricity μm		最大径向间隙 Radial clearance (Max) μm	额定负荷 Basic load rating	
D		L		B		W	D_1	h	h_1	Θ						
mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	mm	mm	mm			精密 Precision	普通 Standard		动负荷 Dynamic C N	静负荷 Static Co N
7	0 –9	10	0 –120	—	—	—	—	—	—	—		4	8	–3	69	105
8		12		—	—	—	—	—	—	—					88	127
10		15		10.2	0 –200	1.1	9.6	—	—	—					167	265
12	0 –11	19	0 –200	13.5		1.1	11.5	1	—	—			12		206	216
15		24		17.5		1.1	14.3	1	—	—					274	392
19	0 –13	29		22		1.3	18	1	6.8	80°		8		–4	372	549
21		30		23		1.3	20	1.5	8	80°					510	784
23		32		23		1.3	22	1.5	9	80°					510	784
28		37		26.5		1.6	27	1.5	11	80°				–6	774	1,180
32		42		30.5		1.6	30.5	1.5	11	60°		10	15		882	1,370
40		59	0 –300	41	0 –300	1.85	38	2	12	50°					980	1.570
45		64		44.5		1.85	43	2.5	15	50°				–8	1,570	2,740
52	0 –19	70		49.5		2.1	49	2.5	17	50°		12	20	–10	1,670	3,140
60		80		60.5		2.1	57	3	20	50°					2,160	4,020
80		100		74		2.6	76.5	3	25	50°				–13	3,820	7,940
90	0 –22	110		85		3.15	86.5	3	30	50°		17	25		4,700	10,000
120		140	0 –400	105.5	0 –400	4.15	116	3	40	50°				–20	7,350	16,000
150	0/–25	175		125.5		4.15	145	3	50	50°		20	30		14,100	34,800

* AJ、OP型外径D、内径dr的公差为开口前的尺寸。
* The tolerance of AJ/OP type outer diameter(D) and inner diameter(dr) is the dimensions before opening.

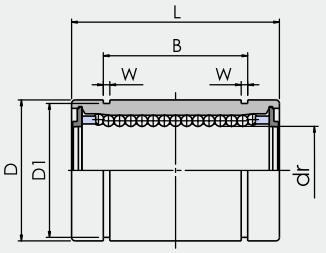
国际单位：1N≈0.102kgf
SIUNIT：1N≈0.102kgf

LME···UU 尼龙保持架
该类型尺寸是公制的，广泛应用于欧洲。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LME···UU (Resin retainer)
This type is a metric dimension series generally used in Europe.
All models can be done with nickle plated according to customers' requirements, with function of rust–proof.

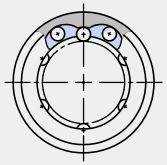

LME···UU


LME···UU–AJ

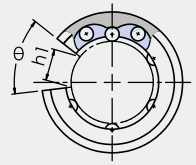

LME···UU–OP



LME···UU



LME···UU–AJ



LME···UU–OP

公称轴径 Nominal shaft diameter mm	尼龙保持架 Resin retainer									dr		
	标准型 LME···UU	钢球列数 Ball circuit	重量 Weight (g)	间隙调整型 LME···UU–AJ	钢球列数 Ball circuit	重量 Weight (g)	开口型 LME···UU–OP	钢球列数 Ball circuit	重量 Weight (g)	mm	公差 Tolerance μm 精密 Precision	公差 Tolerance μm 普通 Standard
3	LME3	4	1.35	—	—	—	—	—	—	3	—	+8 0
4	LME4UU	4	1.9	—	—	—	—	—	—	4		
5	LME5UU	4	11	LME5UU–AJ	4	10	—	—	—	5		
8	LME8UU	4	20	LME8UU–AJ	4	19.5	—	—	—	8		
10	LME10UU	4	29.5	LME10UU–AJ	4	29	LME10UU–OP	3	23	10		
12	LME12UU	4	41	LME12UU–AJ	4	40	LME12UU–OP	3	32	12		
16	LME16UU	5	57	LME16UU–AJ	5	56	LME16UU–OP	4	44	16	—	+9 –1
20	LME20UU	5	91	LME20UU–AJ	5	90	LME20UU–OP	4	75	20		
25	LME25UU	6	215	LME25UU–AJ	6	212	LME25UU–OP	5	181	25	—	+11 –1
30	LME30UU	6	325	LME30UU–AJ	6	320	LME30UU–OP	5	272	30		
40	LME40UU	6	705	LME40UU–AJ	6	694	LME40UU–OP	5	600	40	—	+13 –2
50	LME50UU	6	1,130	LME50UU–AJ	6	1,110	LME50UU–OP	5	970	50		
60	LME60UU	6	2,050	LME60UU–AJ	6	2,000	LME60UU–OP	5	1,580	60		
80	LME80UU	6	5,140	LME80UU–AJ	6	5,000	LME80UU–OP	5	4,380	80	—	+16/–4

主要尺寸和公差 Major dimensions and tolerance												偏心 Eccentricity μm	最大径向间隙 Radial clearance (Max) μm	额定负荷 Basic load rating	
D		L		B		W	D_1	h	h_1	Θ				动负荷 Dynamic C N	静负荷 Static Co N
mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	mm	mm	mm						
7	0 –8	10	0 –120	—	—	—	—	—	—	—		10	–3	69	105
8		12		—	—	—	—	—	—	—				88	127
12		22	0 –200	14.5	0 –200	1.1	11.5	1	—	—		12		206	265
16		25		16.5		1.1	15.2	1	—	—				265	402
19	0 –9	29		22		1.3	18	1	6.8	80°			–4	372	549
22		32		22.9		1.3	21	1.5	7.5	78°				510	784
26		36		24.9		1.3	24.9	1.5	10	78°				578	892
32	0 –11	45		31.5		1.6	30.3	2	10	60°			–6	862	1,370
40		58		44.1		1.85	37.5	2	12.5	60°		15		980	1,570
47		68	0 –300	52.1	0 –300	1.85	44.5	2	12.5	50°			–8	1,570	2,740
62	0 –13	80		60.6		2.15	59	3	16.8	50°		17		2,160	4,020
75		100		77.6		2.65	72	3	21	50°			–13	3,820	7,940
90	0/–15	125	0 –400	101.7	0 –400	3.15	86.5	3	27.2	54°		20		4,700	9,800
120	0/–19	165		133.7		4.15	116	3	36.3	54°		25	–20	7,350	16,000

密封型 Seal type:
LME20 A UU

不标	不带密封
U	单密封
UU	双密封

No entry	No seals
U	Seal on one side
UU	Seal on both sides

A	镀镍

A	Nickle plated

注：小尺寸（3mm内径）无密封。
Note: Smaller sizes (3 mm I.D.) are non–seal type only.

* AJ、OP型外径D、内径dr的公差为开口前的尺寸。
* The tolerance of AJ/OP type outer diameter(D) and inner diameter(dr) is the dimensions before opening.

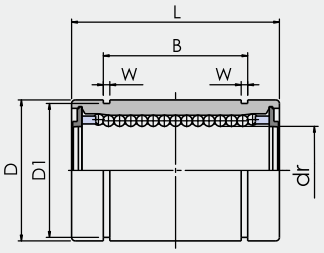
国际单位：1N≈0.102kgf
SIUNIT：1N≈0.102kgf

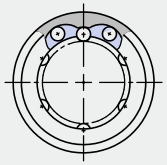
LME…GS 耐高温保持架
该类型尺寸是公制的，广泛应用于欧洲。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LME…GS (High–temperature Resistant Retainer)
This type is a metric dimension series generally used in Europe
All models can be done with nickle plated according to customers' requirements, with function of rust–proof.

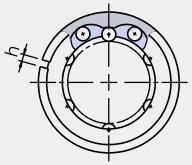

LME…GS


LME…GS–AJ

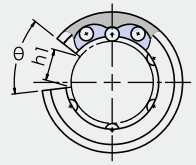

LME…GS–OP




LME…GS



LME…GS–AJ



LME…GS–OP

公称轴径 Nominal shaft diameter mm	钢保持架 Steel retainer									dr		
	标准型 LME…GS	钢球列数 Ball circuit	重量 Weight (g)	间隙调整型 LME…GS–AJ	钢球列数 Ball circuit	重量 Weight (g)	开口型 LME…GS–OP	钢球列数 Ball circuit	重量 Weight (g)	mm	公差 Tolerance μm 精密 Precision	公差 Tolerance μm 普通 Standard
8	LME8GS	4	25.2	LME8GS–AJ	4	24.7	—	—	—	8	—	+8 0
10	LME10GS	4	32	LME10GS–AJ	4	31.5	LME10GS–OP	3	26. 7	10		
12	LME12GS	4	52.9	LME12GS–AJ	4	51.9	LME12GS–OP	3	39. 7	12		
16	LME16GS	5	73.5	LME16GS–AJ	5	72.5	LME16GS–OP	4	58. 8	16	—	+9 −1
20	LME20GS	5	120.3	LME20GS–AJ	5	119.3	LME20GS–OP	4	96. 2	20		
25	LME25GS	6	271.9	LME25GS–AJ	6	268.9	LME25GS–OP	5	226. 6	25	—	+11 −1
30	LME30GS	6	417.3	LME30GS–AJ	6	412.3	LME30GS–OP	5	347. 8	30		
40	LME40GS	6	894.1	LME40GS–AJ	6	883.1	LME40GS–OP	5	745. 1	40	—	+13 −2
50	LME50GS	6	1,130	LME50GS–AJ	6	1,110	LME50GS–OP	5	970.0	50		
60	LME60GS	6	2,050	LME60GS–AJ	6	2,000	LME60GS–OP	5	1,580	60		
80	LME80GS	6	5,140	LME80GS–AJ	6	5,000	LME80GS–OP	5	4,380	80	—	+16/–4

LME20 A GS

GS	钢保持架	GS	Steel retainer
A	镀镍	A	Nickle plated

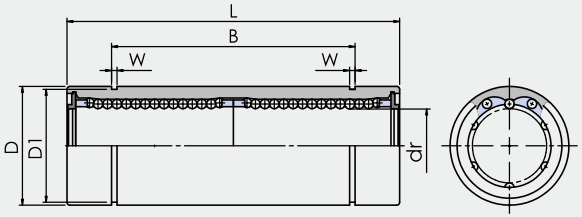
主要尺寸和公差 Major dimensions and tolerance												偏心 Eccentricity μm	最大径向间隙 Radial clearance (Max) μm	额定负荷 Basic load rating	
D		L		B		W	D_1	h	h_1	Θ				动负荷 Dynamic C N	静负荷 Static Co N
mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	mm	mm	mm						
16	0/–8	25	0 –200	16.5	0 –200	1.1	15.2	1	—	—		12	–3	265	402
19	0 –9	29		22		1.3	18	1	6.8	80°			–4	372	549
22		32		22.9		1.3	21	1.5	7.5	78°				510	784
26		36		24.9		1.3	24.9	1.5	10	78°				578	892
32	0 –11	45		31.5		1.6	30.3	2	10	60°		15	–6	862	1,370
40		58	0 –300	44.1	0 –300	1.85	37.5	2	12.5	60°				980	1,570
47		68		52.1		1.85	44.5	2	12.5	50°			–8	1,570	2,740
62	0 –13	80		60.6		2.15	59	3	16.8	50°		17		2,160	4,020
75		100		77.6		2.6	72	3	21	50°			–13	3,820	7,940
90	0/–15	125	0 –400	101.7	0 –400	3.15	86.5	3	27.2	54°		20		4,700	10,000
120	0/–19	165		133.7		4.15	116	3	36.3	54°		25	–20	7,350	16,000

* AJ、OP型外径D、内径dr的公差为开口前的尺寸。
* The tolerance of AJ/OP type outer diameter(D) and inner diameter(dr) is the dimensions before opening.

国际单位：1N≈0.102kgf
SIUNIT：1N≈0.102kgf

LM···LUU 尼龙保持架
该类型尺寸是公制的，广泛应用于亚洲和其它国家。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LM···LUU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickle plated according to customers' requirements,
with function of rust–proof.

LM···LUU



公称轴径 Nominal shaft diameter mm	加长型 LM···LUU	钢球列数 Ball circuit	主要尺寸和公差 Major dimensions and tolerance										偏心 Eccentricity μm	额定负荷 Basic load rating		重量 Weight (g)
			dr		D		L		B		W	D1				
			mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	mm		动负荷 Dynamic C N	静负荷 Static Co N	
3	LM3L	4	3	0 −9	7	0 −11	19	0 −200	—	—	—	—	12	138	210	3
4	LM4LUU	4	4		8		23		—	—	—	—		176	254	4
5	LM5LUU	4	5		10		28		20.4	0/−200	1.1	9.6		265	412	8.4
6	LM6LUU	4	6	0 −10	12	0 −13	35	0 −300	27	0 −300	1.1	11.5	15	323	530	16
8	LM8LUU	4	8		15		45		35		1.1	14.3		431	784	31
10	LM10LUU	4	10		19	0 −16	55		44		1.3	18		588	1,100	62
12	LM12LUU	4	12		21		57		46		1.3	20		813	1,570	80
13	LM13LUU	4	13		23		61		46		1.3	22		813	1,570	90
16	LM16LUU	5	16		28		70		53		1.6	27		1,230	2,350	145
20	LM20LUU	5	20	0 −12	32	0 −19	80		61		1.6	30.5	20	1,400	2,740	180
25	LM25LUU	6	25		40		112	0 −400	82	0 −400	1.85	38		1,560	3,140	440
30	LM30LUU	6	30		45		123		89		1.85	43		2,490	5,490	480
35	LM35LUU	6	35	0 −15	52	0 −22	135		99		2.1	49	25	2,650	6,270	795
40	LM40LUU	6	40		60		151		121		2.1	57		3,430	8,040	1,170
50	LM50LUU	6	50		80		192		148		2.6	76.5		6,080	15,900	3,100
60	LM60LUU	6	60	0 −20	90	0 −25	209		170		3.15	86.5	30	7,550	20,000	3,500
80	LM80LUU	6	80		120		265		216		4.15	116		11,500	32,000	7,710
100	LM100LUU	6	100	0/−25	150	0/−29	341		272		4.15	145		22,560	69,600	16,915

密封型 Seal type:
LM20 L A UU

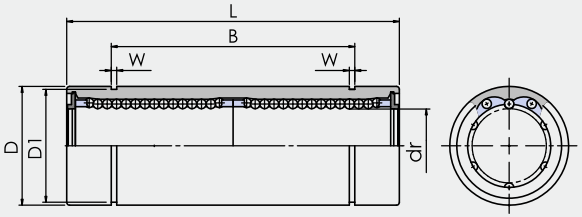
不标	不带密封	No entry	No seals
U	单密封	U	Seal on one side
UU	双密封	UU	Seal on both sides

A	镀镍	A	Nickle plated

国际单位：1N≈0.102kgf
SIUNIT：1N≈0.102kgf

LME···LUU尼龙保持架
该类型尺寸是公制的，广泛应用于欧洲。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LME···LUU(Resin retainer)
This type is a metric dimension series generally used in Europe.
All models can be done with nickle plated according to customers' requirements,
with function of rust–proof.

LME···LUU



公称轴径 Nominal shaft diameter mm	加长型 LME···LUU	钢球列数 Ball circuit	主要尺寸和公差 Major dimensions and tolerance										偏心 Eccentricity μm	额定负荷 Basic load rating		重量 Weight (g)
			dr		D		L		B		W	D1				
			mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	mm		动负荷 Dynamic C N	静负荷 Static Co N	
8	LME8LUU	4	8	+9 −1	16	0/−9	46	0 −300	33	0 −300	1.1	15.2	15	421	804	40
12	LME12LUU	4	12		22	0 −11	61		45.8		1.3	21		813	1,570	80
16	LME16LUU	5	16	+11 −1	26		68		49.8		1.3	24.9		921	1,780	115
20	LME20LUU	5	20		32	0 −13	80		61		1.6	30.5	17	1,370	2,740	180
25	LME25LUU	6	25	+13 −2	40		112	0 −400	82	0 −400	1.85	38		1,570	3,140	430
30	LME30LUU	6	30		47		123		104.2		1.85	44.5		2,500	5,490	615
40	LME40LUU	6	40	+16 −4	62	0 −15	151		121.2		2.15	59	20	3,430	8,040	1,400
50	LME50LUU	6	50		75		192		155.2		2.65	72		6,080	15,900	2,320
60	LME60LUU	6	60		90	0 −20	209		170		3.15	86.5	25	7,550	20,000	3,920
80	LME80LUU	6	80	+19/−6	120		265		216		4.15	116	30	11,500	32,000	7,710

密封型 Seal type:
LME20 L A UU

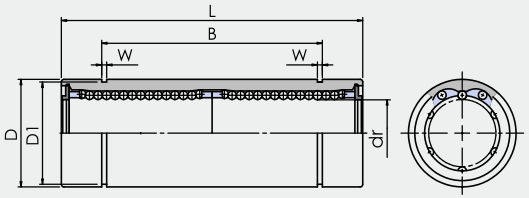
不标	不带密封	No entry	No seals
U	单密封	U	Seal on one side
UU	双密封	UU	Seal on both sides

A	镀镍	A	Nickle plated

国际单位：1N≈0.102kgf
SIUNIT：1N≈0.102kgf

LM···LGS 耐高温保持架
该类型尺寸是公制的，广泛应用于亚洲和其它国家。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LM···LGS (High–temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickle plated according to customers' requirements,
with function of rust–proof.

LM···LGS



公称轴径 Nominal shaft diameter mm	加长型 LM···LGS	钢球列数 Ball circuit	主要尺寸和公差 Major dimensions and tolerance										偏心 Eccentricity μm	额定负荷 Basic load rating		重量 Weight (g)
			dr		D		L		B		W	D1		动负荷 Dynamic C N	静负荷 Static Co N	
			mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	mm				
3	LM3LGS	4	3	0 −9	7	0 −11	19	0 −200	—	—	—	—	12	138	210	3
4	LM4LGS	4	4		8		23		—	—	—	—		176	254	4
5	LM5LGS	4	5		10		28		20.4	0/−200	1.1	9.6		265	412	8.4
6	LM6LGS	4	6	0 −10	12	0 −13	35	0 −300	27	0 −300	1.1	11.5	15	323	530	16
8	LM8LGS	4	8		15		45		35		1.1	14.3		431	784	31
10	LM10LGS	4	10		19	0 −16	55		44		1.3	18		588	1,100	62
12	LM12LGS	4	12		21		57		46		1.3	20		813	1,570	80
13	LM13LGS	4	13		23		61		46		1.3	22		813	1,570	90
16	LM16LGS	5	16		28		70		53		1.6	27		1,230	2,350	145
20	LM20LGS	5	20	0 −12	32	0 −19	80		61		1.6	30.5	20	1,400	2,740	180
25	LM25LGS	6	25		40		112		82		1.85	38		1,560	3,140	440
30	LM30LGS	6	30		45		123		89		1.85	43		2,490	5,490	480
35	LM35LGS	6	35	0 −15	52	0 −22	135	0 −400	99	0 −400	2.1	49	25	2,650	6,270	795
40	LM40LGS	6	40		60		151		121		2.1	57		3,430	8,040	1,170
50	LM50LGS	6	50		80		192		148		2.6	76.5		6,080	15,900	3,100
60	LM60LGS	6	60	0 −20	90	0 −25	209		170		3.15	86.5	30	7,550	20,000	3,500
80	LM80LGS	6	80		120		265		216		4.15	116		11,500	32,000	7,710
100	LM100LGS	6	100	0/−25	150	0/−29	341		272		4.15	145		22,560	69,600	16,915

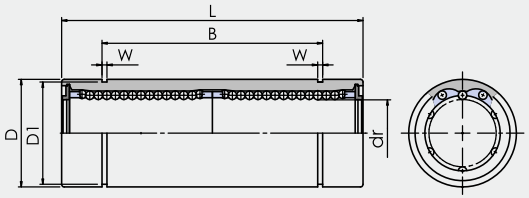
LM20 L A GS

GS	钢保持架	GS	Steel retainer
A	镀镍	A	Nickle plated

国际单位：1N≈0.102kgf
SIUNIT：1N≈0.102kgf

LME···LGS 耐高温保持架
该类型尺寸是公制的，广泛应用于欧洲。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LME···LGS (High–temperature Resistant Retainer)
This type is a metric dimension series generally used in Europe.
All models can be done with nickle plated according to customers' requirements,
with function of rust–proof.

LME···LGS



公称轴径 Nominal shaft diameter mm	加长型 LME···LGS	钢球列数 Ball circuit	主要尺寸和公差 Major dimensions and tolerance										偏心 Eccentricity μm	额定负荷 Basic load rating		重量 Weight (g)
			dr		D		L		B		W	D1		动负荷 Dynamic C N	静负荷 Static Co N	
			mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	mm				
8	LME8LGS	4	8	+9 −1	16	0/−9	46	0 −300	33	0 −300	1.1	15.2	15	421	804	50.4
12	LME12LGS	4	12		22	0 −11	61		45.8		1.3	21		813	1,570	103.8
16	LME16LGS	5	16	+11 −1	26		68		49.8		1.3	24.9		921	1,780	148
20	LME20LGS	5	20		32	0 −13	80		61		1.6	30.5	17	1,370	2,740	238.6
25	LME25LGS	6	25	+13 −2	40		112	0 −400	82	0 −400	1.85	38		1,570	3,140	543.8
30	LME30LGS	6	30		47		123		104.2		1.85	44.5		2,500	5,490	799.6
40	LME40LGS	6	40	+16 −4	62	0 −15	151		121.2		2.15	59	20	3,430	8,040	1,778
50	LME50LGS	6	50		75		192		155.2		2.65	72		6,080	15,900	2,320
60	LME60LGS	6	60		90	0 −20	209		170		3.15	86.5	25	7,550	20,000	3,920
80	LME80LGS	6	80	+19/−6	120		265		216		4.15	116	30	11,500	32,000	7,710

LME20 L A GS

GS	钢保持架	GS	Steel retainer
A	镀镍	A	Nickle plated

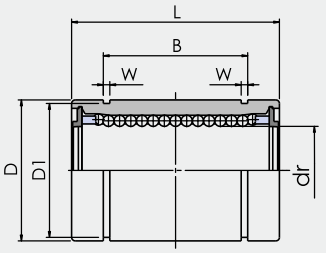
国际单位：1N≈0.102kgf
SIUNIT：1N≈0.102kgf

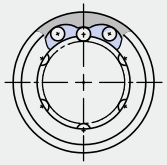
LMB···UU 尼龙保持架
该类型尺寸是英制的，主要是美洲采用。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LMB···UU (Resin retainer)
This type is an inch dimension series mainly used in the America.
All models can be done with nickle plated according to customers' requirements, with function of rust–proof.

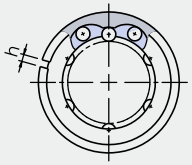

LMB···UU


LMB···UU–AJ

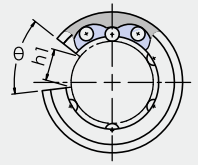

LMB···UU–OP




LMB···UU



LMB···UU–AJ



LMB···UU–OP

公称轴径 Nominal shaft diameter inch/mm	尼龙保持架 Resin retainer									dr		
	标准型 LMB···UU	钢球列数 Ball circuit	重量 Weight (g)	间隙调整型 LMB···UU–AJ	钢球列数 Ball circuit	重量 Weight (g)	开口型 LMB···UU–OP	钢球列数 Ball circuit	重量 Weight (g)	inch mm	公差 Tolerance inch/μm 精密 Precision	公差 Tolerance inch/μm 普通 Standard
1/4 6.350	LMB4	4	8	LMB4–AJ	4	7.5	—	—	—	.2500 6.350		
3/8 9.525	LMB6UU	4	14	LMB6UU–AJ	4	13.5	—	—	—	.3750 9.525	0 –.00025	0 –.00040
1/2 12.700	LMB8UU	4	37	LMB8UU–AJ	4	36.5	LMB8UU–OP	3	28	.5000 12.700	0 –6	0 –9
5/8 15.875	LMB10UU	4	76	LMB10UU–AJ	4	74	LMB10UU–OP	3	57	.6250 15.875		
3/4 19.050	LMB12UU	5	95	LMB12UU–AJ	5	93	LMB12UU–OP	4	76	.7500 19.050	0 –.00030	0 –.00040
1 25.400	LMB16UU	6	200	LMB16UU–AJ	6	198	LMB16UU–OP	5	170	1.0000 25.400	0 –7	0 –10
1–1/4 31.750	LMB20UU	6	440	LMB20UU–AJ	6	430	LMB20UU–OP	5	370	1.2500 31.750	0 –.00035	0 –.00050
1–1/2 38.100	LMB24UU	6	670	LMB24UU–AJ	6	660	LMB24UU–OP	5	570	1.5000 38.100		
2 50.800	LMB32UU	6	1,140	LMB32UU–AJ	6	1,120	LMB32UU–OP	5	980	2.0000 50.800	0 –8	0 –12

主要尺寸和公差 Major dimensions and tolerance												偏心 Eccentricity inch/μm		最大径向间隙 Radial clearance (Max) inch/μm	额定负荷 Basic load rating	
D		L		B		W	D_1	h	h_1	Θ						
inch mm	公差 Tolerance inch/μm	inch mm	公差 Tolerance inch/μm	inch mm	公差 Tolerance inch/μm	inch mm	inch mm	inch mm	inch mm			精密 Precision	普通 Standard		动负荷 Dynamic C N	静负荷 Static Co N
.5000 12.700	0 –.00045 0 –11	.7500 19.050		.5110 12.98		.0390 0.992	.4687 11.906	.04 1	—	—				–.0001 –3	206	265
.6250 15.875		.8750 22.225	0 –.008	.6358 16.15	0 –.008	.0390 0.992	.5880 14.935	.04 1	—	—					225	314
.8750 22.225	0 –.00050	1.2500 31.750		.9625 24.46		.0459 1.168	.8209 20.853	.06 1.5	.34 7.9375	80°		.0003 8	.0005 12	–.0001 –4	510	784
1.1250 28.575	0 –13	1.5000 38.100	0 –200	1.1039 28.04	0 –200	.0559 1.422	1.0590 26.899	.06 1.5	.375 9.525	80°					774	1,180
1.2500 31.750	0 –.00065	1.6250 41.275		1.1657 29.61		.0559 1.422	1.1760 29.870	.06 1.5	.4375 11.1125	60°		.0004 10	.0006 15	–.0002 –6	862	1,370
1.5625 39.688	0 –16	2.2500 57.150		1.7547 44.57		.0679 1.727	1.4687 37.306	.06 1.5	.5625 14.2875	50°					980	1,570
2.0000 50.800	0 –.00075	2.6250 66.675	0 –.012	2.0047 50.92	0 –.012	.0679 1.727	1.8859 47.904	.10 2.5	.625 15.875	50°		.0005 12	.0008 20	–.0003 –8	1,570	2,740
2.3750 60.325	0 –19	3.0000 76.200	0 –300	2.4118 61.26	0 –300	.0859 2.184	2.2389 56.870	.12 3	.75 19.05	50°					2,180	4,020
3.0000 76.200	0 –.00090 0 –22	4.0000 101.600		3.1917 81.07		.1029 2.616	2.8379 72.085	.12 3	1.0 25.40	50°		.0007 17	.0010 25	–.0005 –13	3,820	7,940

密封型 Seal type:
LMB20 A UU

不标	不带密封	No entry	No seals
U	单密封	U	Seal on one side
UU	双密封	UU	Seal on both sides

A	镀镍	A	Nickle plated

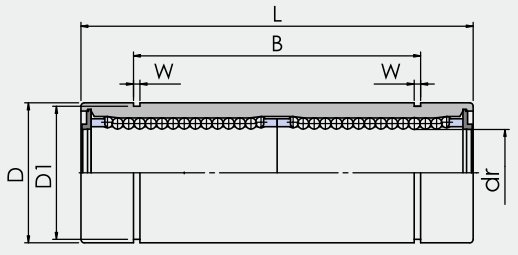
注：小尺寸（1/4 Inch内径）无密封。
Note: Smaller sizes (1/4 Inch I.D.) are non–seal type only.

* AJ、OP型外径D、内径dr的公差为开口前的尺寸。
* The tolerance of AJ/OP type outer diameter(D) and inner diameter(dr) is the dimensions before opening.

国际单位：1N≈0.225lbs
1kg≈2.205lbs
SIUNIT：1N≈0.225lbs
1kg≈2.205lbs

LMB···LUU 尼龙保持架
该类型尺寸是英制的，主要是美洲采用。
所有型号均可根据客户要求做镀镍处理，有防锈作用。
LMB···LUU (Resin retainer)
This type is an inch dimension series mainly used in the America.
All models can be done with nickle plated according to customers' requirements, with function of rust–proof.

LMB···LUU



LMB···LUU

公称轴径 Nominal shaft diameter inch/mm	加长型 LMB···LUU	重量 Weight (g)	钢球列数 Ball circuit	主要尺寸和公差 Major dimensions and tolerance	
				dr	
				inch mm	公差 Tolerance inch/ μ m
1/4 6.350	LMB4L	17. 5	4	.2500 6.350	0 –.00040 0 –10
3/8 9.525	LMB6LUU	28	4	.3750 9.525	
1/2 12.700	LMB8LUU	80	4	.5000 12.700	
5/8 15.875	LMB10LUU	160	4	.6250 15.875	
3/4 19.050	LMB12LUU	195	5	.7500 19.050	0 –.00050 0 –12
1 25.400	LMB16LUU	410	6	1.0000 25.400	
1–1/4 31.750	LMB20LUU	820	6	1.2500 31.750	0 –.00060 0 –15
1–1/2 38.100	LMB24LUU	1250	6	1.5000 38.100	
2 50.800	LMB32LUU	1350	6	2.0000 50.800	

主要尺寸和公差 Major dimensions and tolerance								偏心 Eccentricity inch/ μ m	额定负荷 Basic load rating	
D		L		B		W	D1		动负荷 Dynamic C N	静负荷 Static Co N
inch mm	公差 Tolerance inch/ μ m	inch mm	公差 Tolerance inch/ μ m	inch mm	公差 Tolerance inch/ μ m	inch mm	inch mm			
.5000 12.700	0 –.00050 0 –13	1.3750 34.925	0 –.012	1.0220 25.959	0 –.012	.0390 0.992	.4687 11.906	.0006 15	323	530
.6250 15.875	0 –.00065 0 –16	1.5938 40.481		1.2716 32.298		.0390 0.992	.5880 14.935		353	630
.8750 22.225		2.3750 60.325		1.9250 48.895		.0459 1.168	.8209 20.853		813	1,570
1.1250 28.575		2.8125 71.438	0 –300	2.2079 56.080	0 –300	.0559 1.422	1.0590 26.899		1,230	2,350
1.2500 31.750	0 –.00075 0 –19	3.0937 78.581		2.3314 59.218		.0559 1.422	1.1760 29.870	.0008 20	1,370	2,740
1.5625 39.688		4.2831 108.744		3.5049 89.139		.0679 1.727	1.4687 37.306		1,570	3,140
2.0000 50.800	0 –.00090 0 –22	5.0000 127.000	0 –.016	4.0094 101.839	0 –.016	.0679 1.727	1.8859 47.904	.0010 25	2,500	5,490
2.3750 60.325		5.6875 144.463	0 –400	4.8236 122.519	0 –400	.0859 2.184	2.2389 56.870		3,430	8,040
3.0000 76.200	0 –.00100 0 –25	7.7500 196.850		6.3834 162.138		.1029 2.616	2.8379 72.085	.0012 30	6,080	15,900

密封型 Seal type:
LMB20 L A UU

不标	不带密封	No entry	No seals
U	单密封	U	Seal on one side
UU	双密封	UU	Seal on both sides

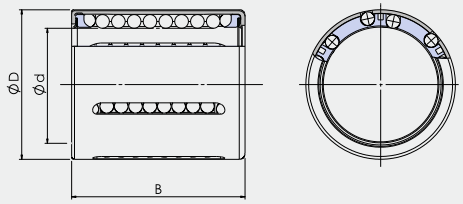
A	镀镍	A	Nickle plated

国际单位：1N≈0.225lbs
1kg≈2.205lbs
SIUNIT：1N≈0.225lbs
1kg≈2.205lbs

冲压外圈型: KH

Pressing Bush Bearing: KH

KH···



型号 Model	主要尺寸 Major dimensions (mm)			额定负荷 Basic load rating		重量 Weight (g)
	ϕd	ϕD	B	动负荷 Dynamic C N	静负荷 Static Co N	
KH0622PP	6	12	22	400	239	7
KH0824PP	8	15	24	435	280	12
KH1026PP	10	17	26	500	370	14.5
KH1228PP	12	19	28	620	510	18.5
KH1428PP	14	21	28	620	520	20.5
KH1630PP	16	24	30	800	620	27.5
KH2030PP	20	28	30	950	790	32.5
KH2540PP	25	35	40	1,990	1,670	66
KH3050PP	30	40	50	2,800	2,700	95
KH4060PP	40	52	60	4,400	4,450	182
KH5070PP	50	62	70	5,500	6,300	252

密封型.
Seal type

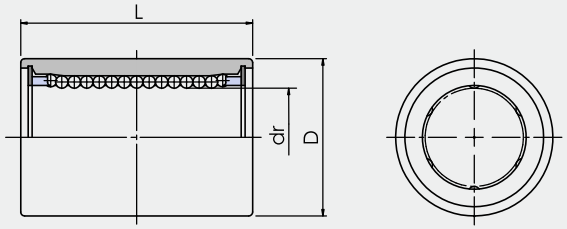
不标	不带密封
P	单密封
PP	双密封

No entry	No seals
P	Seal on one side
PP	Seal on both sides

冲压同款尺寸精密型: LKH

The same size of KH serie, precision type: LKH

LKH···UU



公称轴径 Nominal shaft diameter mm	标准型 LKH···UU	钢球列数 Ball circuit	钢球直径 Ball diameter (mm)	重量 Weight (g)	主要尺寸 Major dimensions (mm)						额定负荷 Basic load rating	
					dr		D		L			
					mm	公差 Tolerance μm	mm	公差 Tolerance μm	mm	公差 Tolerance μm	动负荷 Dynamic C N	静负荷 Static Co N
10	LKH10UU	5	2.0	17.3	10	0 −9	17	0 −9	26	0 −200	364	609
12	LKH12UU	6	2.0	21.8	12		19		28		472	790
16	LKH16UU	6	2.381	33	16		24		30		706	911
20	LKH20UU	6	2.381	37	20	0 −10	28	0/−13	30		850	1022
25	LKH25UU	7	3.175	76	25		35	0 −16	40	0 −300	1189	1847
30	LKH30UU	8	3.175	115	30		40		50		1850	3059
40	LKH40UU	8	3.969	280	40	0/−12	54	0/−19	60		2696	5018

密封型 Seal type:
LKH20 A UU

不标	不带密封
U	单密封
UU	双密封

No entry	No seals
U	Seal on one side
UU	Seal on both sides

A	镀镍

A	Nickle plated