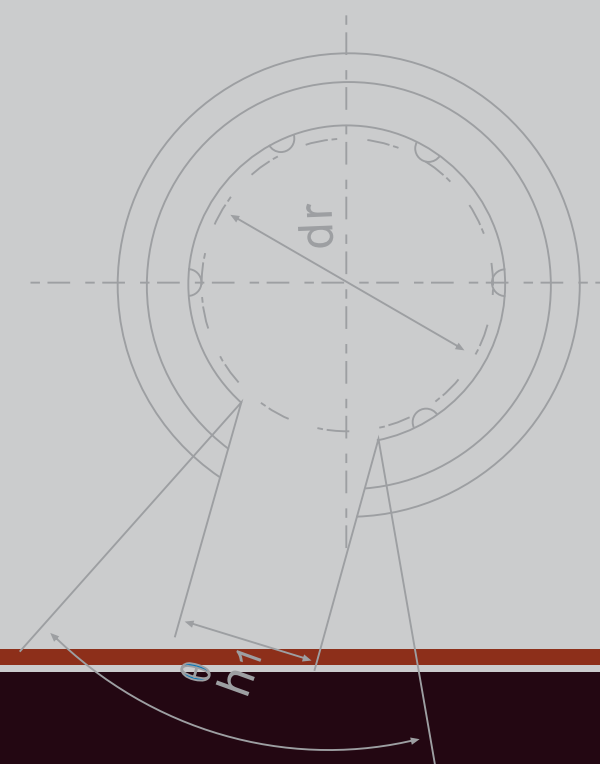




LINEAR BALL BEARING
SILVERSTONE MACHINERY INDUSTRY CO.,LTD.



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SILVERSTONE MACHINERY INDUSTRY CO.,LTD.



2024



COMPANY PROFILE

WW insbearing tom

Silverstone Machinery has endeavored in producing first-class IN'S linear ball bearing.

since 2000. Passed may strict inspection of customers all over the world like 500 hours & 1 00,000 strokes non-stop running lifetime test IN'S linear ball Bearing has been proven Successful over these years.

Silverstone Machinery is in China, in possession of 42, 000m workshop and staff of 380 people in total, including 24 engineers.

We design and make all spare parts ourselves including every procedure, from tuning to CNC machining, for our SM.KB. SW ball bearing, KH compact ball bearing, aluminium linear case unit and Super type ball bearing. All machinery tools & clamps and plastic moulds are made by ourselves as well.

Silverstone always dedicates its full capabilities and resources including working staff, facilities, systems and technologies to two goal:

producing world-class products
assuring customer's full satisfaction.

In April 2005, Silverstone machinery went through the TUV / ISO 9002 approval.



Technical information

IN' S linear Ball Bearing

KH series SM series

KB series SW series

SMW series KBW series

Enged Slide Bearing

SMF / K / H, C series KBF / K, C series

SMF, K, H, C L series KBF / K, C L series

Super Linear Ball Bearing

IN' S Linear Ball Bearing System

Case Unit

IN' S Linear ball Bearing System

Support Rail Unit

IN' S Linear ball Bearing System

Shaft Support

IN' S Linear ball Bearing System

SM Shaft

IN' S Linear ball Bearing System

Interchangeability list

IN' S Linear ball Bearing System

Tolerances for inside diameter of housing



PRODUCING WORLD-CLASS PRODUCTS. ASSURING CUSTOMERS' FULL SATISFACTION.

LINEAR BALL BUSHING

Linear bushing are linear bearings for unlimited backwards and forwards linear movement during which the balls are constantly returned to the loaded zone in closed circuits.

The bearings enable accurate linear guides to be constructed simply and economically.

The IN'S Linear bushing is a high precision bushing which offers unlimited linear travel distance with minimum frictional resistance.

With high performance and a wide range of types, the IN'S Linear bushing being used in many fields such as machine tools, industrial machines, electrical equipments, food processing machines, and optical and measuring equipments.

The requisite linear ball bearing for a given linear guidance application is selected on the basis of its load carrying capacity in relation to the load being applied and the requirements in terms of operational life and reliability.



Built-in Synthetics Resin Retainer
合成树脂保持器直线轴承



Stainless Steel Retainer
整体不锈钢保持器直线轴承



LINEAR BALL BUSHING

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Stainless Steel Retainer 整体不锈钢保持器直线轴承



LM P.21
LME P.25
LMB P.27



LM-AJ P.21
LME-AJ P.25
LMB-AJ P.27



LM-OP P.21
LME-OP P.25
LMB-OP P.27



LM-L P.29
LME-L P.31
LMB-L P.33



LM-VS P.23

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Stainless Steel Retainer 整体不锈钢保持器直线轴承



LMF P.37
LMEF P.43
LMBF P.47



LMK P.39
LMEK P.45
LMBK P.49



LMH P.41



LMF-L P.51
LMEF-L P.57
LMBF-L P.61



LMK-L P.53
LMEK-L P.59
LMBK-L P.63



LMH-L P.55

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LMFC P.85
LMEFC P.89
LMBFC P.91



LMKC P.85
LMEKC P.89
LMBKC P.91



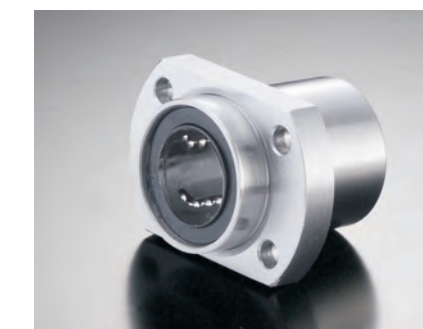
LMHC P.87



LMF...UU-E P.77



LMK...UU-E P.77



LMH...UU-E P.79



LMF...LUU-E P.81



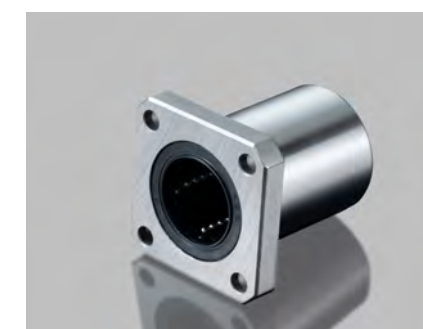
LMK...LUU-E P.81



LMH...LUU-E P.83



LMF-RB P.65



LMK-RB P.67



LMH-RB P.69

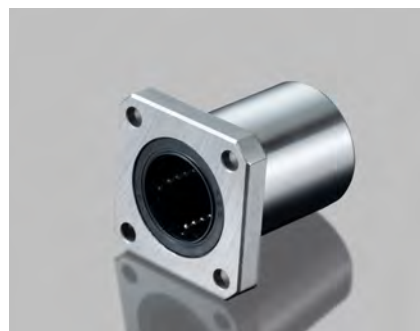
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BALL BUSHING

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LMF-L-RB P.71



LMK-L-RB P.73



LMH-L-RB P.75



LM-UD P.93



LMF-UD P.95



LMK-UD P.97



LMH-UD P.99



LMF/K...UU-E-UD P.101



LMH...UU-E-UD P.103



LMFC/KC...UU-UD P.105



LMHC...UU-UD P.107

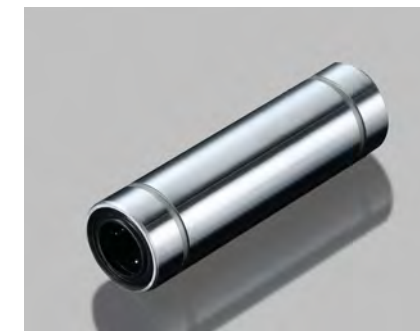
FLANGED TYPE LINEAR
BALL BUSHING

Built-in Synthetics Resin Retainer
合成树脂保持器直线轴承

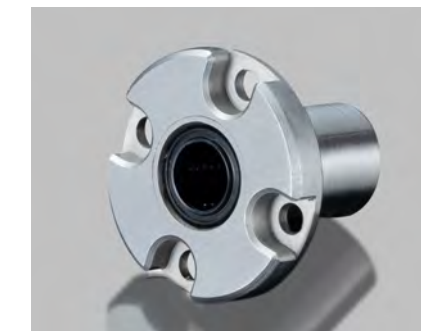
Stainless Steel Retainer
整体不锈钢保持器直线轴承



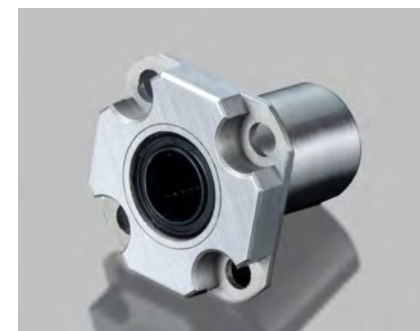
LM-TH P.109



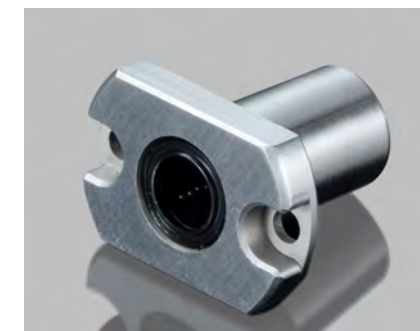
LM-L-TH P.111



LMF-TH P.113



LMK-TH P.115



LMH-TH P.117



LMF-L-TH P.119



LMK-L-TH P.121



LMH-L-TH P.123



LMF...UU-E-TH P.125



LMK...UU-E-TH P.127



LMH...UU-E-TH P.129



LMF...LUU-E-TH P.131

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LMK...LUU-E-TH P.133



LMH...LUU-E-TH P.135



LM-OL P.137



LM-L-OL P.139



LMF-OL P.141



LMK-OL P.143



LMH-OL P.145



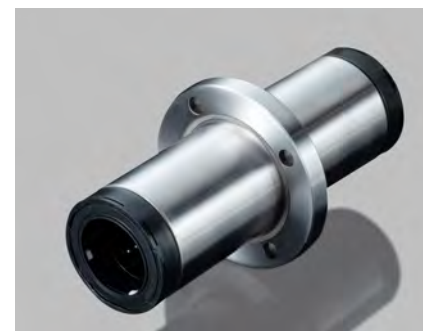
LMF-L-OL P.147



LMK-L-OL P.149



LMH-L-OL P.151



LMFC/KC...UU-OL P.153

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LMHC...UU-OL P.155



LMF/K...UU-E-OL P.157



LMH...UU-E-OL P.159



LMF/K...LUU-E-OL P.161



LMH...LUU-E-OL P.163



LMF-TR P.165



LMK-TR P.167



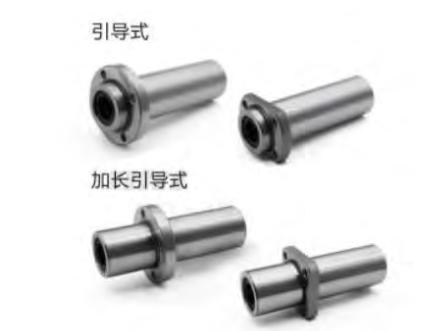
LMH-TR P.169



LMF/K...UU-E-TR P.171



LMH...UU-E-TR P.173



LMF/K...UU-SE-TR P.175

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引导式



加长引导式



LMH...UU-SE-TR P.177



ST P.179



ST-L P.181



STF P.183



STK P.185



STH P.187



STF-L P.189



STK-L P.191



STH-L P.193

KH BUSHING



COMPACT RANGE
KH SERIES P.20

LBBR BUSHING



LBBR P.19

SUPER LINEAR BALL BUSHING



LMES P.201
LMBS P.203



LMES-OP P.202
LMBS-OP P.204

LINEAR BALL BUSHING CASE UNIT



SC P.207
SCE P.209



SC-W P.207
SCE-W P.209



SC-V P.207
SCE-V P.209



SCJ P.211



TWA P.213



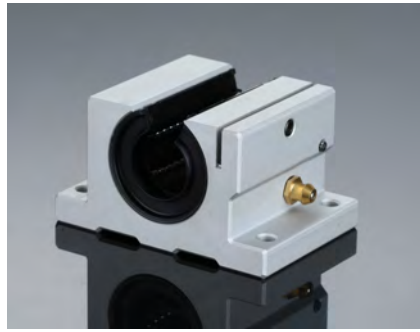
TWA-W P.215



TWJ P.217



TWJ-W P.219



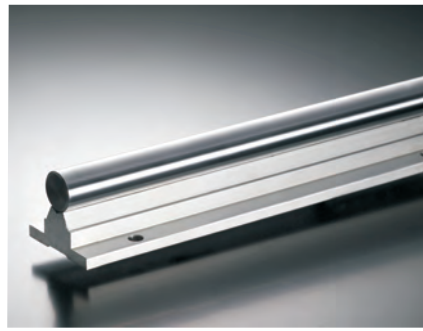
TWD P.221

LINEAR BALL BUSHING CASE UNIT

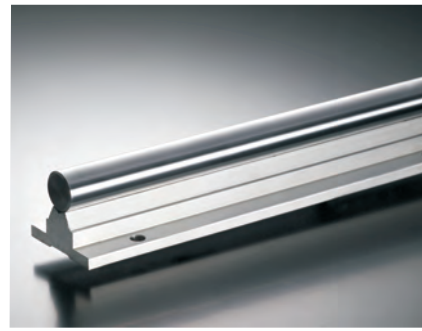


TWD-W P.223

SUPPORT RAIL UNIT



SBS P.225



TBS P.226



SBR P.227

SUPPORT RAIL UNIT



TBR P.228



SBR-S P.227



TBR-S P.228

SHAFT SUPPORT



SHF P.230



SK P.231

FINE SHAFT



SF P.233

Load Rating

Basic Dynamic Load Rating (C)

This term is arrived at based on an evaluation of a number of identical linear systems individually run in the same conditions, if 90% of them can run with the load (with a constant value in a constant direction) for a distance of 50 km without damage caused by rolling fatigue. This is the basis of the rating.

Allowable Static Moment (M)

This term defines the allowable limit value of static moment load, with reference to the amount of permanent deformation similar to that used for evaluation of basic rated load (Co).

Static Safety Factor (fs)

This factor is used based on the application condition as shown in Table 1.

Basic Static Load Rating (Co)

This term defines a static load such that, at the contacting position where the maximum stress is exercised, the sum of the permanent deformation of the rolling elements and that of the rolling plane is 0.0001 time of the diameter of the rolling elements.

Table 1. Static Safety Factors

Condition of use	Low limit of fs
When the shaft has less deflection and shock	1 to 2
When elastic deformation should be considered with respect to pinch load	2 to 4
When the equipment is subject to vibration and impacts	3 to 5

Rating Life

Rating Life of the Lineat System

As long as the linear system reciprocates while being loaded, continuous stress acts on the linear system to cause flaking on the rolling bodies and planes because of material fatigue. The travelling distance of linear system until the first flaking occurs is called the life of the systems. The life of the system varies even for the systems of the same dimenstions, structure, material, heat treatment and processing method, when used in the same conditions. This variation is brought about from the essential variations in the material fatigue itself. he rating life defined bellow is used as an index for the life expectancy of the linear system.

Rating Life (L)

Rating life is the total travelling distance that 90% of a group of systems of the same size can reach without causing any flaking when they operate under the same conditions.

The rating life can be obtained from the following equation with The basic dynamic load rating and the load on the linear system:

$$\text{For ball type: } L = \left(\frac{C}{P} \right)^3 \cdot 50 \quad (1)$$

L: Rating life (km) C: Basic dynamic load rating (N)
P: Load (N)

Consideration and influence of vibration impact loads and distribution of load should be taken into account when designing a linear motion system, It is difficult to calculate the actual load. The rating life is also affected by the operating temperature. In these conditions, the expression(1) is arranged as follows:

$$\text{For ball type: } L = \left(\frac{f_H \cdot f_T \cdot f_C}{f_W} \cdot \frac{C}{P} \right)^3 \cdot 50$$

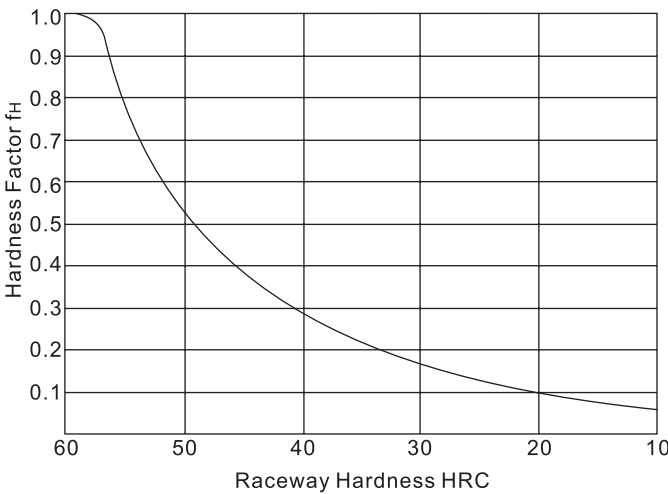
L: Rating lift (km) f_H: Hardness factor (See Fig. 1)
C: Basic dynamic load rating (N)
f_T: Temperature coefficient (See Fig. 2) P: Load (N)
f_C: Contact coefficient (See Table 2)
f_W: Load coefficient (See Table 3)

The rating life in hours can be calculated by obtaining the travelling distance per unit time. The rating life in hours can be obtained from the following expression when the stroke length and the number of strokes are constant:

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

L_h: Rating life in hours (hr)
ℓ_s: Stroke length (m)
L: Rating life (km)
n₁: No. of strokes per minute (cpm)

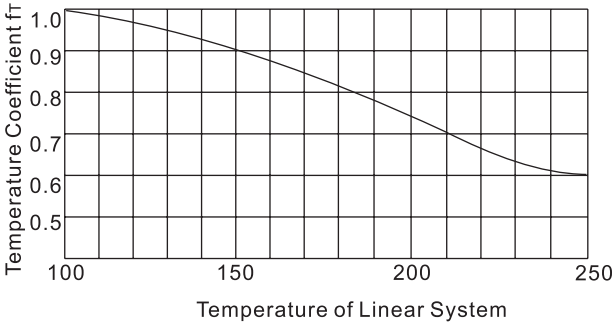
Fig. 1 Hardness Factor



Hardness Factor (fH)

The shaft must be sufficiently hardened when a linear bushing is used. If not properly hardened, permissible load is lowered and the life of the bushing will be shortened.

Fig. 2 Temperature Coefficient



Temperature Coefficient (fT)

If the temperature of the linear system exceeds 100°C, hardness of the linear system and the shaft lowers to decrease the permissible load compared to that of the linear system used at room temperature. As a result, the abnormal temperature rise shortens the rating life.

Table 2 Contact Coefficient

Number of linear systems per shaft	Contact coefficient f _C
1	1.00
2	0.81
3	0.72
4	0.66
5	0.61

Contact Coefficient (fC)

Generally two or more linear bushings are used on one shaft. Thus, the load on each linear system differs depending on each processing accuracy. Because the linear bushings are not loaded equally, the number of linear bushings per shaft changes the permissible load off the system.

Table 3 Load Coefficient

Operating Conditionss	f _W
Operation at low speed (15m/min.or less) without impulsive shock from outside	1.0 to 1.5
Operation at intermediate speed (60m/min.or less) without impulsive shock	1.5 to 2.0
Operation at high speed (over 60m/min.) With impulsive shock from outside	2.0 to 3.5

Load Coefficient (fW)

When calculating the load on the linear system, it is necessary to accurately obtain object weight, inertial force based on motion speed, moment load, and each transition as time passes. However, it is difficult to calculate those values accurately because reciprocating motion involves the repetition of start and stop as well as vibration and impact. A more practical approach is to obtain the load coefficient by taking the actual operating conditions into account.

Frictional Resistance

The static frictional resistance of the IN'S linear system is so low as to be only slightly different from the kinetic frictional resistance, enabling smooth linear movement from low to high speeds. In general, the frictional resistance is expressed by the following equation.

$$F = \mu \cdot W + f$$

F: Frictional resistance μ : Coefficient of friction
W: Load weight f: Sealing resistance

The frictional resistance of each IN'S linear system depends on the model, load weight, speed, and lubricant. The sealing resistance depends on the lip interference and lubricant,

Ambient Working Temperature

The ambient working temperature range for each IN'S linear system depends on the model. Consult IN'S on use outside the recommended temperature range.

Temperature conversion equation

$$C = \frac{5}{9}(F - 32)$$

$$F = 32 + \frac{9}{5}C$$

Lubrication and Dust Prevention

Using KBS linear systems without lubrication increases the abrasion of the rolling elements, shortening the life span. The IN'S linear systems therefore require appropriate lubrication. For lubrication IN'S recommends turbine oil conforming to ISO Standards G32 to G68 or lithium base soap grease No.2. Some IN'S linear systems are sealed to block dust out and seal lubricant in. If used in a harsh or corrosive environment, however, apply a protective cover to the part involving linear motion.

regardless of the load weight. The sealing resistance of one linear system is about 200 to 500 gf. The coefficient of friction depends on the load weight, moment load, and preload. Table 6 shows the coefficient of kinetic friction of each type of linear system which has been installed and lubricated properly and applied with normal load (P/C=0.2)

Table 5 Coefficient of Linear System Friction (μ)

Linear System Type	Models	Coefficient of Friction (μ)
Linear Bushing	SM KB SW	0.002 to 0.003

Table 6 Ambient Working Temperature

Linear System Type	Models	Ambient Working Temperature
Linear Bushing	SM KB SW	-20 to 80°C

Structure and Features

- The IN'S linear bushing consists of an outer cylinder, ball retainer, balls and two end rings. The ball retainer which holds the balls in the recirculating trucks is held in side 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 synthetics resin. The steel retainer has high rigidity, obtained by heat treatment. The synthetics resin retainer can reduce running noise. The user can select the optimum type for meeting the user's service conditions.



1.High Precision and Rigidity

The IN'S linear bushing is produced from a solid steel outer cylinder and incorporates an industrial strength resin retainer.

2.Ease of Assembly

The standard type of IN'S linear bushing can be loaded from any direction. Precision control is possible using only the shaft supporter, and the mounting surface can be machined easily.

3.Ease of Replacement

IN'S linear bushings 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.Variety of Types

IN'S offers a full line of linear bushing: the standard, integral single-retainer closed type, the clearance adjustable type and the open types. The user can choose from among these according to the application requirements to be met.

Types and linear Bushing Number

Example

SM

16

G

F

UU

AJ

OP

Type

SM

KB

SW

Metric dimension series most widely used in Japan

Metric dimension series generally used in Europe

Inch dimension series used mainly in USA

Inner contact diameter

Reatiner material

G

Resin

Flange type

F

K

T

Round type

Square type

Two sid cut type

Open type

Clearance-adjustable type

Blank

Without seal

U

Seals on one sides

UU

Seals on both sides

Tolerance

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.

Load Rating and life Expectancy

The lift (L) of a linear bushing can be obtained from the following equation with the basic dynamic load rating and the load applied to the bush:

$$L = \left(\frac{f_H \cdot f_T \cdot f_c}{f_w} \cdot \frac{C}{P} \right)^3 \cdot 50 \quad (1)$$

L: Rated life(km)
C: Basic dynamic load rating(N)
P: Working load(N)
f_w: Load coefficient

f_H: Hardness factor(See page5)
f_T: Temperature coefficient(See page5)
f_c: Contact coefficient(See page5)

The lifespan(L_n) of a linear bushing in hours can be obtained by calculating the traveling distance per unit time.
The lifespan can be obtained from the following equation if the stroke length and the number of strokes are constant:

$$L_h = \left(\frac{L \cdot 10^3}{2 \cdot s \cdot n_1 \cdot 60} \right) \quad (2)$$

L_n: Lifespan(hr)
L: Rated life(km)
S: Stroke length (m)
n₁: Number of strokes per minute (cpm)

Relation between ball Circuits and load rating

The IN'S linear bushing includes ball circuits that are spaced equally and circumferentially. The load rating varies according to the loaded position on the circumference.

The value the dimension table indicates the load rating when the load is placed on top of one ball circuit. If the IN'S linear bushing is used will 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:

Table 1

Number of rows	3	4	5	6	8
Row position load ratio					
Row position	 Q ₁ =P ₀	 Q ₁ =P ₀	 Q ₁ =1.106P ₀	 Q ₁ =1.354P ₀	 Q ₁ =1.841P ₀
Row position	 Q ₀ =P ₀	 Q ₀ =1.414P ₀	 Q ₀ =1.618P ₀	 Q ₀ =1.732P ₀	 Q ₀ =2.052P ₀
Load ratio	Q ₀ /Q ₁ =1	Q ₀ /Q ₁ =1.414	Q ₀ /Q ₁ =1.463	Q ₀ /Q ₁ =1.280	Q ₀ /Q ₁ =1.115

Sample Calculations

1. Obtaining the rated life L and lifespan L_n of the KBS linear bushing used in the following conditions:

- Linear bushing: LM20
- Stroke length: 50mm
- Number of strokes per minute: 50cpm
- Load per bush: 490N

The basic dynamic load rating of the linear bushing is 882N from the dimension table. From equation(1), therefore, the rated life L is obtained as follows:

$$L = \left(\frac{f_H \cdot f_T \cdot f_c}{f_w} \cdot \frac{C}{P} \right)^3 \cdot 50 \quad f_H=f_T=f_c=f_w=1.0$$

$$= \left(\frac{882}{490} \right)^3 \cdot 50 = 292\text{km}$$

From equation(2), the lifespan L_n is obtained as follows:

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

2. Selecting the linear bushing type satisfying the following conditions:

- Number of linear bushing used: 4
- Stroke length: 1m
- Traveling speed: 10m/min
- Number of strokes per minute: 5cpm
- Lifespan: 10,000hr
- Total load: 980N

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

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

From equation(1), the basic dynamic load rating is obtained as follows:

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

Assume the following with a pair of shafts each with two linear bushings:

$$f_c=0.81, f_w=f_T=f_H=1$$

As a result, LM30 is selected from the dimension table as the IN'S linear bushing type satisfying the value of C

Clearance and Fit

When a standard-type IN'S linear bushing is used with a shaft, inadequate clearance, adjustment may cause early bush failure and/or poor, rough travelling. The clearance adjustable linear bush and open linear 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:

Table 2

Division Model		Shaft		Housing	
		Normal fit	Transitional	Loose fit	Tight fit
SM	High class	g6	h6	H7	J7
SW					
KB	High class	h6	j6	H7	J7

Note: The clearance may be zero or negative. Please attention the movement.

Shaft and Housing

To optimize performance of the KBS linear bushing high precision of the shaft and housing is required.

1. Shaft

The rolling balls in the IN'S linear bushing are in point contact with the shaft surface. Therefore, the shaft dimensions, tolerance, surface finish, and hardness greatly affect the travelling performance of the bush. The shaft should be manufactured with due attention to the following points:

- 1) Since the surface finish critically affects smooth rolling of balls, grind the shaft at 1.5 S or better
- 2) 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, hardness over HRC 64 accelerates ball wear.

- 3) The shaft diameter for the clearance adjustable linear bush and open linear bush should as much as possible be of the lower value of the inscribed circle diameter in the specification table. Do not set the shaft diameter to the upper value.
- 4) 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.

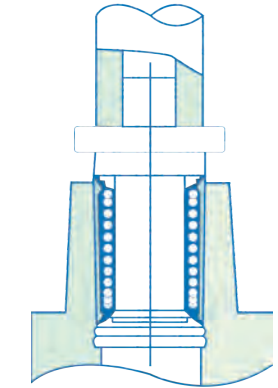
2. Housing

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

Mounting

When inserting the linear bush into the housing, do not hit the linear bush on the side ring holding the retainer but apply the cylinder circumference with a proper jig and push the linear 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



Examples of Mounting

The popular way to mount a linear 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 (Figs.2 to 6) show assembling of the inserted bush in terms of designing and mounting, for reference.

Fig.2

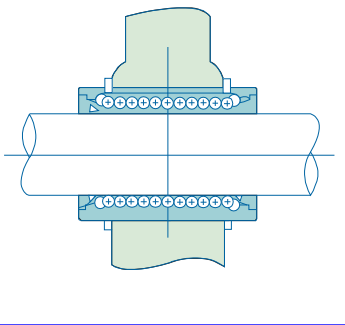


Fig.5

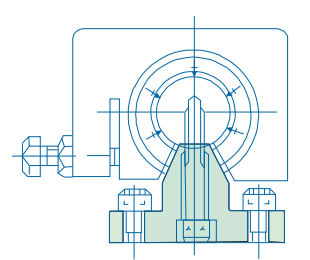


Fig.4

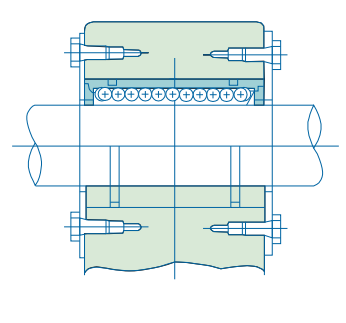


Fig.3

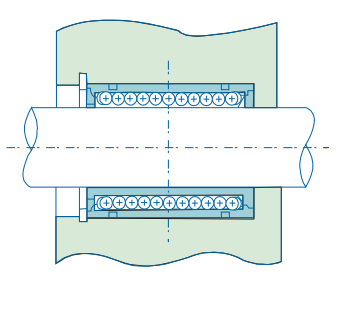
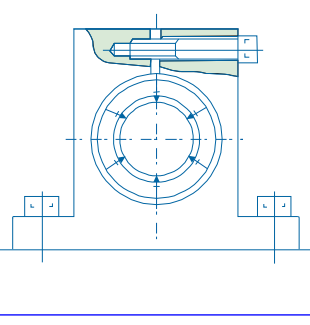
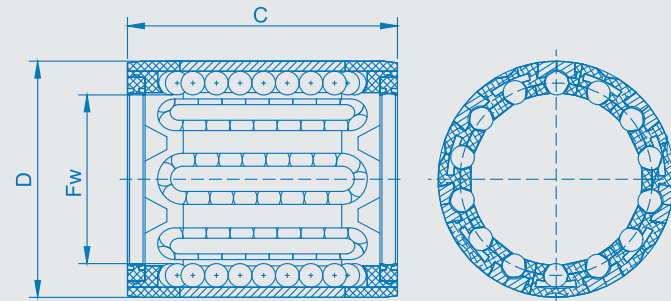


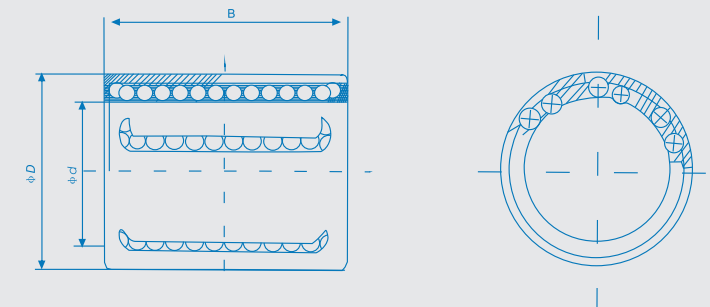
Fig.6



Compact linear ball bearing–LBBR type



Compact linear ball bearing–KH type

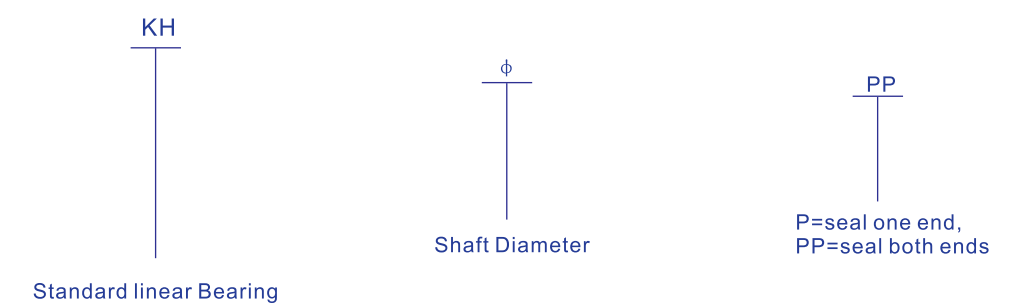


Dimensions			No. of ball rows	Basic load ratings		Weight	Designations	
F_w	D	C		Dyn. C	Stat. C_0		Linear ball bearings	
mm			—	N	N	kg	—	
25	35	40	7	2 120	1 560	0,047	LBBR 25	LBBR 25-2LS
30	40	50	8	3 150	2 700	0,070	LBBR 30	LBBR 30-2LS
40	52	60	8	5 500	4 500	0,130	LBBR 40	LBBR 40-2LS

More models are under development

Part-No.	Dimensions [mm]			Load Capacity [N]		Weight [g]
	ϕd	ϕD	B	Dyn.	Stat.	
KH-0622	6	12	22	400	240	7
KH-0824	8	15	24	440	280	12
KH-1026	10	17	26	500	370	14.5
KH-1228	12	19	28	620	510	18.5
KH-1428	14	21	28	710	530	20.5
KH-1630	16	24	30	800	630	27.5
KH-2030	20	28	30	950	800	32.5
KH-2540	25	35	40	1990	1560	66
KH-3050	30	40	50	2900	2700	95
KH-4060	40	52	60	5100	4500	182
KH-5070	50	62	70	6950	6300	252

Ordering Example:



LM <Built-in Synthetics Resin Retainer>

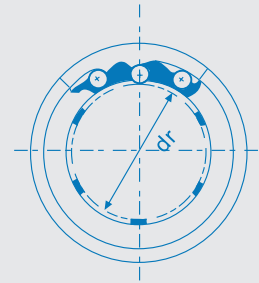
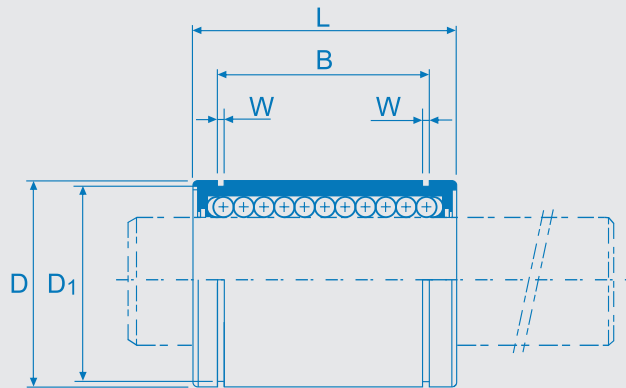
合成树脂保持器

LMA <Stainless Steel Retainer>

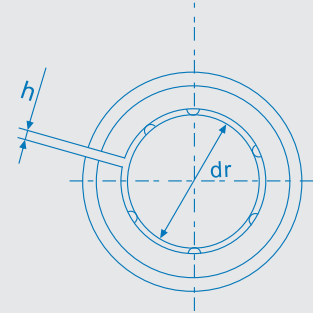
整体不锈钢保持器



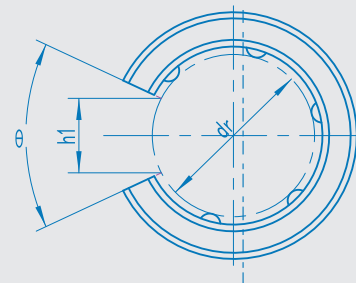
This type is a metric dimension series widely used in Japan and other countries



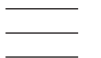
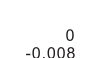
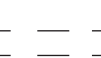
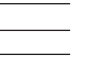
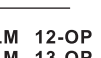
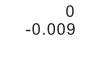
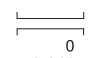
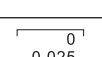
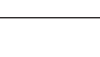
LM



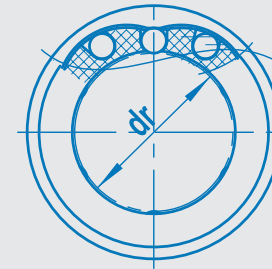
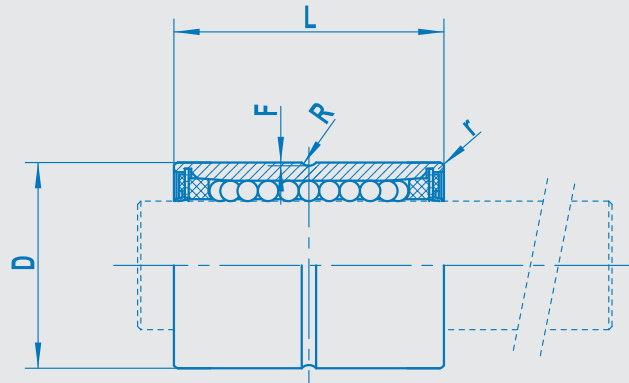
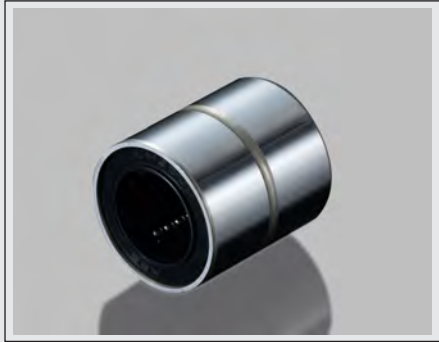
LM . . . AJ



LM . . . OP

Nominal Part No.						Nominal Shaft Diameter (mm)		Major Dimensions and Tolerance (mm)										Eccentricity (max) μ m	Radial Clearance (max) μ m	Basic Load Rating C(N) Co(N)		Nominal Part No.	
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	Adjustable Type	Open Type	dr	Tolerance	D Tolerance	L Tolerance	B Tolerance	W	D1	h	h1	θ								
LM 3UU LM 4UU LM 5UU		4 4 4	1.4 2.0 4			3 4 5		7 8 10		10 12 15		10.2		1.1	9.6				8	-3	69 88 167	105 127 206	LM 3 LM 4 LM 5
LM 6UU LM 8SUU LM 8UU	LM 8-A	4 4 4	8.5 11 17	LM 6-AJ LM 8S-AJ LM 8-AJ		6 8 8		12 15 15		19 17 24		13.5 11.5 17.5		1.1 1.1 1.1	11.5 14.3 14.3	1 1 1			12 12 12	-3 -3 -3	206 176 265	265 225 402	LM 6 LM 8S LM 8
LM 10UU LM 12UU LM 13UU	LM 10-A LM 12-A	4 4 4	36 42 49	LM 10-AJ LM 12-AJ LM 13-AJ	 LM 12-OP LM 13-OP	10 12 13		19 21 23		29 30 32		22 23 23		1.3 1.3 1.3	18 20 22	1 1.5 1.5	8 8 9	80° 80° 80°	12 12 12	-4 -4 -4	373 412 510	549 590 775	LM 10 LM 12 LM 13
LM 16UU LM 20UU LM 25UU	LM 16-A LM 20-A LM 25-A	5 5 6	76 100 240	LM 16-AJ LM 20-AJ LM 25-AJ	LM 16-OP LM 20-OP LM 25-OP	16 20 25		28 32 40		37 42 59		26.5 30.5 41		1.6 1.6 1.85	27 30.5 38	1.5 1.5 2	11 11 12	80° 60° 50°	12 15 15	-6 -6 -6	775 863 980	1180 1370 1570	LM 16 LM 20 LM 25
LM 30UU LM 35UU	LM 30-A LM 35-A	6 6	270 425	LM 30-AJ LM 35-AJ	LM 30-OP LM 35-OP	30 35 38		45 52 52		64 70 70		44.5 49.5 49.5		1.85 2.1 2.1	43 49 49	2.5 2.5 2.5	15 17 17	50° 50° 50°	15 20	-8 -8	1570 1670	2750 3140	LM 30 LM 35
LM 40UU LM 50UU LM 60UU	LM 40-A	6 6 6	654 1700 2000	LM 40-AJ LM 50-AJ LM 60-AJ	LM 40-OP LM 50-OP LM 60-OP	40 50 60		60 80 90		80 100 110		60.5 74 85		2.1 2.6 3.15	57 76.5 86.5	3 3 3	20 25 30	50° 50° 50°	20 20 25	-10 -13 -13	2162 3820 4710	4020 7940 10000	LM 40 LM 50 LM 60
LM80UU LM100UU LM120UU	LM 80 LM 100 LM 120	6 6 8	4420 8600 15000	LM 80-AJ LM 100-AJ LM 120-AJ	LM 80-OP LM 100-OP LM 120-OP	80 100 120		120 150 180		140 175 200		105.5 125.5 158.6		4.15 4.15 4.15	116 145 175	3 3 3	40 50 85	50° 50° 80°	25 30 30	-20 -20 -25	7350 14100 16400	16000 34800 4000	LM 80 LM 100 LM 120
LM150UU	LM 150	8	20250	LM 150-AJ	LM 150-OP	150		210		240		170.6		5.15	204	3	105	80°	40	-25	21100	54300	LM 150

LM VSUU <Built-in Synthetics Resin Retainer> 合成树脂保持器



Nominal Part NO				Nominal Shaft Diameter (mm)							Eccentricity (max) μm	Basic Load Rating C(N) Co(n)	
StandardType	SealType	Ball Circuit	Weight g	dr	Tolerance	D Tolerance	L Tolerance	R	F	(r)			
LM6-VS	LM6UU-VS	4	6.6	6		12 $\begin{matrix} 0 \\ -0.011 \end{matrix}$	16	1	0.3	0.4	12	110	150
LM8-VS	LM8UU-VS	4	14.7	8		15 $\begin{matrix} 0 \\ -0.011 \end{matrix}$	20	1.2	0.3	0.4	12	150	225
LM10-VS	LM10UU-VS	4	26.1	10		19 $\begin{matrix} 0 \\ -0.011 \end{matrix}$	25	1.2	0.4	0.4	12	250	355
LM12-VS	LM12UU-VS	4	28.6	12	$\begin{matrix} 0 \\ -0.009 \end{matrix}$	21 $\begin{matrix} 0 \\ -0.013 \end{matrix}$	25 $\begin{matrix} 0 \\ -0.2 \end{matrix}$	1.2	0.4	0.8	12	315	405
LM13-VS	LM13UU-VS	4	36.3	13		23 $\begin{matrix} 0 \\ -0.013 \end{matrix}$	25 $\begin{matrix} 0 \\ -0.2 \end{matrix}$	1.2	0.4	0.8	12	320	410
LM16-VS	LM16UU-VS	5	60.0	16		28 $\begin{matrix} 0 \\ -0.016 \end{matrix}$	30 $\begin{matrix} 0 \\ -0.2 \end{matrix}$	1.2	0.5	0.8	12	580	720
LM20-VS	LM20UU-VS	5	81.6	20	$\begin{matrix} 0 \\ -0.010 \end{matrix}$	32 $\begin{matrix} 0 \\ -0.016 \end{matrix}$	35 $\begin{matrix} 0 \\ -0.2 \end{matrix}$	1.5	0.5	0.8	15	775	1030

LME <Built-in Synthetics Resin Retainer>

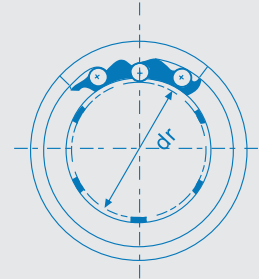
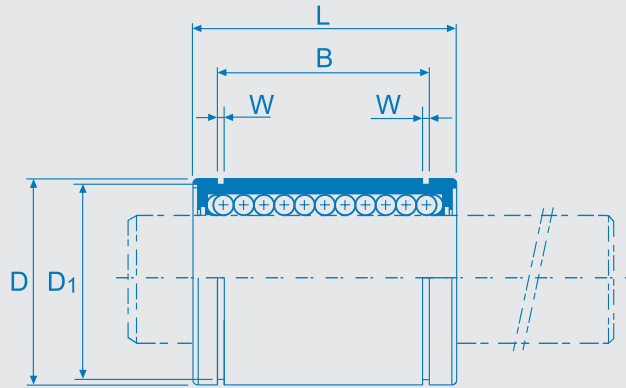
合成树脂保持器

LMEA <Stainless Steel Retainer>

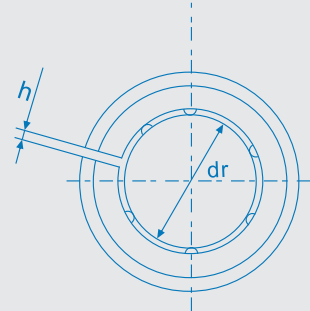
整体不锈钢保持器



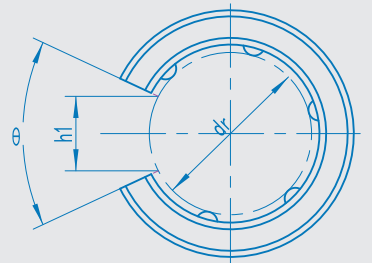
This type is a metric dimension series generally used in Europe.



LME



LME . . . AJ



LME . . . OP

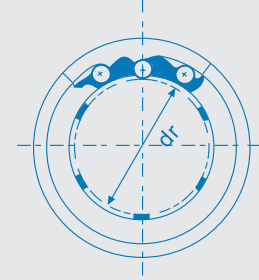
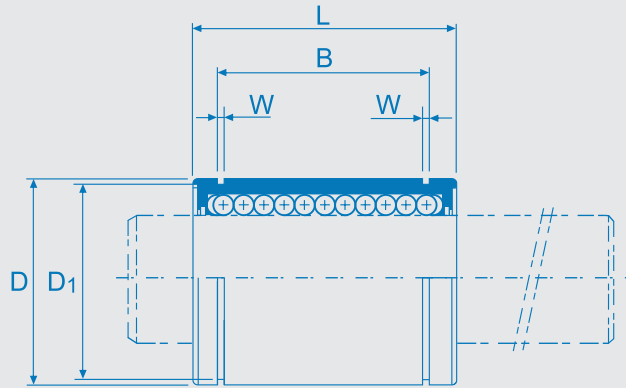
Nominal Part No.						Nominal Shaft Diameter (mm)		Major Dimensions and Tolerance (mm)										Eccentricity (max) μ m	Radial Clearance (max) μ m	Basic Load Rating C(N) Co(N)		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	Adjustable Type	Open Type	dr	Tolerance	D Tolerance	L Tolerance	B Tolerance	W	D1	h	h1	θ							
LME 8UU LME 12UU	LME 8-A LME 12-A	4 4	22 45	LME 8-AJ LME 12-AJ	LME 12-OP	8 12	$\begin{matrix} \\ +0.008 \\ \end{matrix}$	$\begin{matrix} \\ -0.008 \\ \end{matrix}$	$\begin{matrix} \\ \\ -0.2 \end{matrix}$	$\begin{matrix} \\ \\ -0.2 \end{matrix}$	1.1 1.3	15.2 21	1 1.5	7.5	78°	12 12	-3 -4	265 510	402 784	LME 8 LME 12		
LME 16UU LME 20UU LME 25UU	LME 16-A LME 20-A LME 25-A	5 5 6	60 102 235	LME 16-AJ LME 20-AJ LME 25-AJ	LME 16-OP LME 20-OP LME 25-OP	16 20 25	$\begin{matrix} +0.009 \\ -0.001 \\ \end{matrix}$	$\begin{matrix} -0.009 \\ \\ -0.011 \end{matrix}$	$\begin{matrix} \\ \\ \end{matrix}$	$\begin{matrix} \\ \\ \end{matrix}$	1.3 1.6 1.85	24.9 30.5 38	1.5 2 2	10 10 12.5	78° 60° 60°	12 15 15	-4 -6 -6	578 862 980	892 1370 1570	LME 16 LME 20 LME 25		
LME 30UU LME 40UU LME 50UU	LME 30-A LME 40-A	6 6 6	360 720 1015	LME 30-AJ LME 40-AJ LME 50-AJ	LME 30-OP LME 40-OP LME 50-OP	30 40 50	$\begin{matrix} -0.001 \\ \\ +0.013 \end{matrix}$	$\begin{matrix} \\ \\ -0.013 \end{matrix}$	$\begin{matrix} \\ -0.3 \\ \end{matrix}$	$\begin{matrix} \\ -0.3 \\ \end{matrix}$	1.85 2.15 2.65	44.5 59 72	2 3 3	12.5 16.8 21	50° 50° 50°	15 17 17	-8 -8 -13	1570 2160 3820	2740 4020 7940	LME 30 LME 40 LME 50		
LME 60UU		6	2220	LME 60-AJ	LME 60-OP	60	$\begin{matrix} \\ \end{matrix}$	$\begin{matrix} \\ -0.015 \end{matrix}$	$\begin{matrix} \\ -0.4 \end{matrix}$	$\begin{matrix} \\ -0.4 \end{matrix}$	3.15	86.5	3	27.2	54°	20	-13	4700	9800	LME 60		

SI Unit 1N $\approx$ 0.102kgf

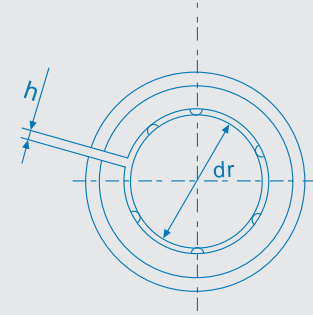
LMB <Built-in Synthetic Resin Retainer> 合成树脂保持器



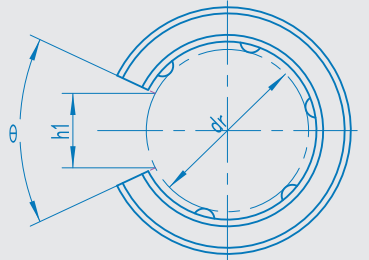
This type is an inch dimension series mainly used in the US.



LMB



LMB . . . AJ



LMB . . . OP

Nominal Shaft Diameter (Inch/mm)	Nominal Part No.						Nominal Shaft Diameter (Inch/mm)		Major Dimensions and Tolerance (Inch/mm)											Eccentricity (max) mch/μm	Radial Clearance (max) mch/μm	Basic Load Rating C(N) Co(N)		Nominal Part No.
	Standard Type	Seal Type	Ball Circuit	Weight g	Adjustable Type	Open Type	dr	Tolerance	D	Tolerance	L	Tolerance	B	Tolerance	W	D1	h	h1	θ					
1/4 6.350	LMB 4	LMB 4UU	4	9.5	LMB 4-AJ	—	.2500 6.350	$\begin{matrix} 0 \\ -0.011 \end{matrix}$	.5000 12.700	$\begin{matrix} 0 \\ -0.0045 \\ 0 \\ -0.011 \end{matrix}$	.7500 19.050	$\begin{matrix} 0 \\ -0.008 \end{matrix}$	0.5110 12.98	$\begin{matrix} 0 \\ -0.008 \end{matrix}$	.0390 0.992	.4687 11.906	.04 1	—	—	-.0005 12	-.0001 -3	206	265	LMB 4
3/8 9.525	LMB 6	LMB 6UU	4	15	LMB 6-AJ	—	.3750 9.525	$\begin{matrix} 0 \\ -0.040 \end{matrix}$	.6250 15.875	$\begin{matrix} 0 \\ -0.00050 \end{matrix}$	.8750 22.225	$\begin{matrix} 0 \\ -0.008 \end{matrix}$	0.6358 16.15	$\begin{matrix} 0 \\ -0.008 \end{matrix}$	.0390 0.992	.5880 14.935	.04 1	—	—	-.0005 12	-.0001 -3	225	314	LMB 6
1/2 12.700	LMB 8	LMB 8UU	4	42	LMB 8-AJ	LMB 8-OP	.5000 12.700	$\begin{matrix} 0 \\ -0.009 \end{matrix}$	.8750 22.225	$\begin{matrix} 0 \\ -0.009 \end{matrix}$	1.2500 31.750	$\begin{matrix} 0 \\ -0.008 \end{matrix}$	0.9625 24.46	$\begin{matrix} 0 \\ -0.008 \end{matrix}$	.0459 1.168	.8209 20.853	.06 1.5	.34 7.9375	80°	-.0005 12	-.0001 -4	510	784	LMB 8
5/8 15.875	LMB 10	LMB 10UU	4	85	LMB 10-AJ	LMB 10-OP	.6250 15.875	$\begin{matrix} 0 \\ -0.013 \end{matrix}$	1.1250 28.575	$\begin{matrix} 0 \\ -0.013 \end{matrix}$	1.5000 38.100	$\begin{matrix} 0 \\ -0.2 \end{matrix}$	1.1039 28.04	$\begin{matrix} 0 \\ -0.2 \end{matrix}$	.0559 1.422	1.0590 26.899	.06 1.5	.375 9.525	80°	-.0005 12	-.0001 -4	774	1180	LMB 10
3/4 19.050	LMB 12	LMB 12UU	5	104	LMB 12-AJ	LMB 12-OP	.7500 19.050	$\begin{matrix} 0 \\ -0.040 \end{matrix}$	1.2500 31.750	$\begin{matrix} 0 \\ -0.0065 \end{matrix}$	1.6250 41.275	$\begin{matrix} 0 \\ -0.0065 \end{matrix}$	1.1657 29.61	$\begin{matrix} 0 \\ -0.0065 \end{matrix}$	.0559 1.422	1.1760 29.870	.06 1.5	.4375 11.1125	60°	-.0006 15	-.0002 -6	862	1370	LMB 12
1 25.400	LMB 16	LMB 16UU	6	220	LMB 16-AJ	LMB 16-OP	1.0000 25.400	$\begin{matrix} 0 \\ -0.010 \end{matrix}$	1.5625 39.688	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	2.2500 57.150	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	1.7547 44.57	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	.0679 1.727	1.4687 37.306	.06 1.5	.5625 14.2875	50°	-.0006 15	-.0002 -6	980	1570	LMB 16
1-1/4 31.750	LMB 20	LMB 20UU	6	465	LMB 20-AJ	LMB 20-OP	1.2500 31.750	$\begin{matrix} 0 \\ -0.0050 \end{matrix}$	2.0000 50.800	$\begin{matrix} 0 \\ -0.0075 \end{matrix}$	2.6250 66.675	$\begin{matrix} 0 \\ -0.12 \end{matrix}$	2.0047 50.92	$\begin{matrix} 0 \\ -0.12 \end{matrix}$	.0679 1.727	1.8859 47.904	.10 2.5	.625 15.875	50°	-.0008 20	-.0003 -8	1570	2740	LMB 20
1-1/2 38.100	LMB 24	LMB 24UU	6	720	LMB 24-AJ	LMB 24-OP	1.5000 38.100	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	2.3750 60.325	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	3.0000 76.200	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	2.4118 61.26	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	.0859 2.184	2.2389 56.870	.12 3	.75 19.05	50°	-.0008 20	-.0003 -8	2180	4020	LMB 24
2 50.800	LMB 32	LMB 32UU	6	1310	LMB 32-AJ	LMB 32-OP	2.0000 50.800	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	3.0000 76.200	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	4.0000 101.600	$\begin{matrix} 0 \\ -0.3 \end{matrix}$	3.1917 81.07	$\begin{matrix} 0 \\ -0.3 \end{matrix}$	.1029 2.616	2.8379 72.085	.12 3	1.0 25.40	50°	-.0010 25	-.0005 -13	3820	7940	LMB 32

SI Unit 1N≒0.225lbs
1kg≒2.205lbs

LM-L <Built-in Synthetics Resin Retainer>

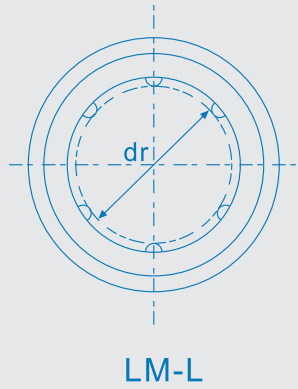
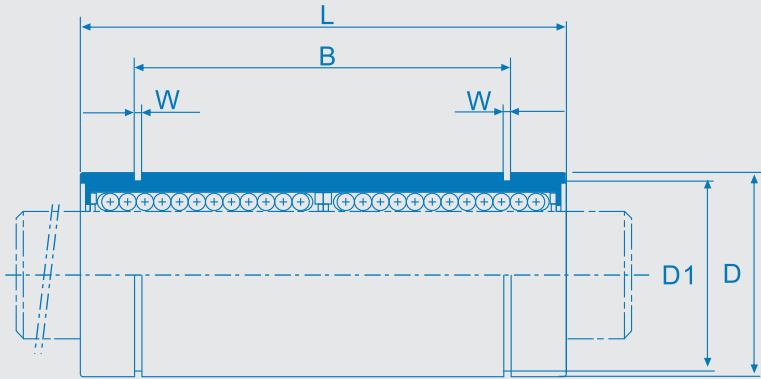
合成树脂保持器

LM-LA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



Nominal Part No.		Nominal Shaft Diameter (mm)		Major Dimensions and Tolerance (mm)						Eccentricity (max) μm	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr	Tolerance	D Tolerance	L Tolerance	B Tolerance	W	D1	Dynamic C(N)	Static Co(N)	
LM 4L UU LM 5L UU		4 4	4.8 11	4 5	$\begin{matrix} 0 \\ -0.010 \end{matrix}$	$\begin{matrix} 8 \\ 10 \end{matrix}$ $\begin{matrix} 0 \\ -0.011 \end{matrix}$	23 28	20.4 -0.3	1.1	9.6	176 256	254 412	LM 4L LM 5L
LM 6L UU LM 8L UU LM 10L UU	LM 8L-A LM 10L-A	4 4 4	16 31 62	6 8 10	$\begin{matrix} 0 \\ -0.010 \end{matrix}$	$\begin{matrix} 12 \\ 15 \\ 19 \end{matrix}$ $\begin{matrix} 0 \\ -0.013 \\ 0 \end{matrix}$	$\begin{matrix} 35 \\ 45 \\ 55 \end{matrix}$	$\begin{matrix} 27 \\ 35 \\ 44 \end{matrix}$ $\begin{matrix} 0 \\ -0.3 \end{matrix}$	1.1 1.1 1.3	11.5 14.3 18	323 431 588	530 784 1,100	LM 6L LM 8L LM 10L
LM 12L UU LM 13L UU LM 16L UU	LM 12L-A LM 13L-A LM 16L-A	4 4 5	80 90 145	12 13 16	$\begin{matrix} 0 \\ -0.010 \end{matrix}$	$\begin{matrix} 21 \\ 23 \\ 28 \end{matrix}$ $\begin{matrix} 0 \\ -0.016 \\ 0 \end{matrix}$	$\begin{matrix} 57 \\ 61 \\ 70 \end{matrix}$ $\begin{matrix} 0 \\ -0.3 \end{matrix}$	$\begin{matrix} 46 \\ 46 \\ 53 \end{matrix}$ $\begin{matrix} 0 \\ -0.3 \end{matrix}$	1.3 1.3 1.6	20 22 27	813 813 1,230	1,570 1,570 2,350	LM 12L LM 13L LM 16L
LM 20L UU LM 25L UU LM 30L UU	LM 20L-A LM 25L-A LM 30L-A	5 6 6	180 440 480	20 25 30	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	$\begin{matrix} 32 \\ 40 \\ 45 \end{matrix}$ $\begin{matrix} 0 \\ -0.019 \end{matrix}$	$\begin{matrix} 80 \\ 112 \\ 123 \end{matrix}$	$\begin{matrix} 61 \\ 82 \\ 89 \end{matrix}$ $\begin{matrix} 0 \\ -0.3 \end{matrix}$	1.6 1.85 1.85	30.5 38 43	1,400 1,560 2,490	2,740 3,140 5,490	LM 20L LM 25L LM 30L
LM 35L UU LM 40L UU LM 50L UU	LM 35L-A LM 40L-A	6 6 6	795 1,170 3,100	35 40 50	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	$\begin{matrix} 52 \\ 60 \\ 80 \end{matrix}$ $\begin{matrix} 0 \\ -0.022 \end{matrix}$	$\begin{matrix} 135 \\ 151 \\ 192 \end{matrix}$ $\begin{matrix} 0 \\ -0.4 \end{matrix}$	$\begin{matrix} 99 \\ 121 \\ 148 \end{matrix}$ $\begin{matrix} 0 \\ -0.4 \end{matrix}$	2.1 2.1 2.6	49 57 76.5	2,650 3,430 6,080	6,270 8,040 15,900	LM 35L LM 40L LM 50L
LM 60L UU		6	3,500	60	$\begin{matrix} 0 \\ -0.020 \end{matrix}$	$\begin{matrix} 90 \\ -0.025 \end{matrix}$	209	170	3.15	86.5	7,650	20,000	LM 60L

SI Unit 1N $\approx$ 0.102kgf

LME-L <Built-in Synthetics Resin Retainer>

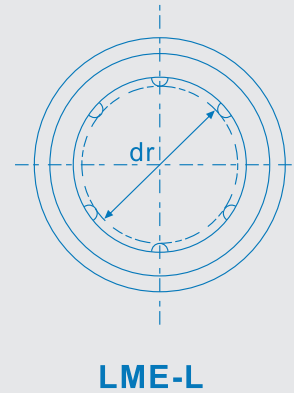
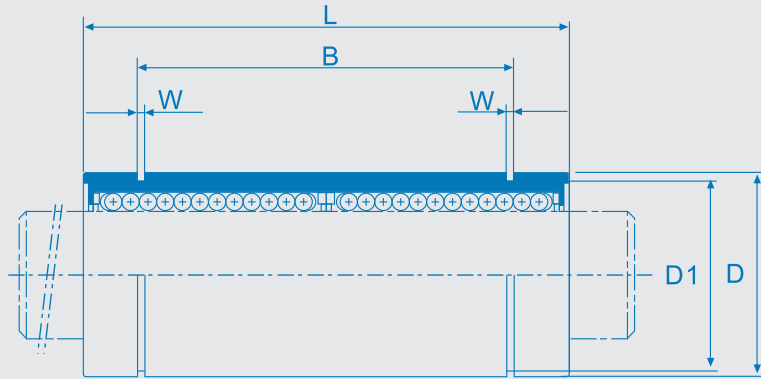
合成树脂保持器

LME-LA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series generally used in Europe.



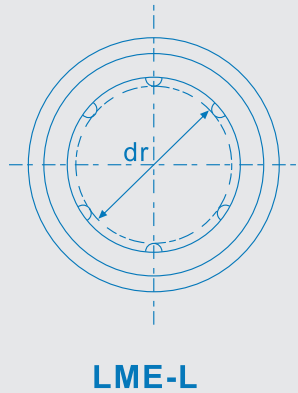
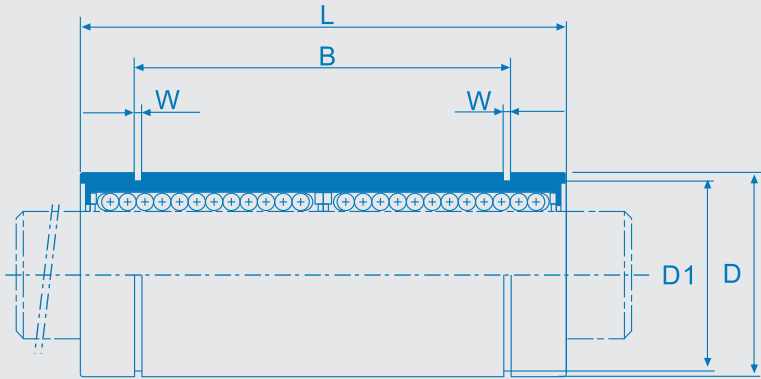
Nominal Part No.		Nominal Shaft Diameter (mm)		Major Dimensions and Tolerance (mm)							Eccentricity (max) μm	Basic Load Rating Dynamic C(N) Static Co(N)		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr	Tolerance	D Tolerance	L Tolerance	B Tolerance	W	D1				
LME 8L UU	LME 8L-A	4	40	8	$\begin{matrix} +0.009 \\ -0.001 \end{matrix}$	16 $\begin{matrix} 0 \\ -0.009 \end{matrix}$	46	33	1.1	15.2	15	421	804	LME 8L
LME 12L UU	LME 12L-A	4	80	12	$\begin{matrix} 0 \\ -0.001 \end{matrix}$	22 $\begin{matrix} 0 \\ -0.011 \end{matrix}$	61	45.8	1.3	21	15	813	1,570	LME 12L
LME 16L UU	LME 16L-A	5	115	16	$\begin{matrix} +0.011 \\ -0.001 \end{matrix}$	26 $\begin{matrix} 0 \\ -0.011 \end{matrix}$	68 -0.3	49.8	1.3	24.9	15	921	1,780	LME 16L
LME 20L UU	LME 20L-A	5	180	20	$\begin{matrix} -0.001 \\ +0.013 \end{matrix}$	32 $\begin{matrix} 0 \\ -0.013 \end{matrix}$	80	61	1.6	30.5	17	1,370	2,740	LME 20L
LME 25L UU	LME 25L-A	6	430	25	$\begin{matrix} +0.013 \\ -0.002 \end{matrix}$	40 $\begin{matrix} 0 \\ -0.013 \end{matrix}$	112	82	1.85	38	17	1,570	3,140	LME 25L
LME 30L UU	LME 30L-A	6	615	30	$\begin{matrix} -0.002 \\ +0.016 \end{matrix}$	47 $\begin{matrix} 0 \\ -0.020 \end{matrix}$	123	104.2	1.85	44.5	17	2,500	5,490	LME 30L
LME 40L UU	LME 40L-A	6	1,400	40	$\begin{matrix} +0.016 \\ -0.004 \end{matrix}$	62 $\begin{matrix} 0 \\ -0.015 \end{matrix}$	151 -0.4	121.2	2.15	59	20	3,430	8,040	LME 40L
LME 50L UU		6	2,320	50	$\begin{matrix} +0.016 \\ -0.004 \end{matrix}$	75 $\begin{matrix} 0 \\ -0.020 \end{matrix}$	192	155.2	2.65	72	20	6,080	15,900	LME 50L
LME 60L UU		6	3,500	60	$\begin{matrix} +0.016 \\ -0.004 \end{matrix}$	90 $\begin{matrix} 0 \\ -0.020 \end{matrix}$	209	170	3.15	86.5	25	7,550	20,000	LME 60L

SI Unit 1N $\approx$ 0.102kgf

LMB-L <Built-in Synthetics Resin Retainer>
合成树脂保持器



This type is a metric dimension series generally used in Europe.



Nominal Part No.				Nominal Shaft Diameter (mm)		Major Dimensions and Tolerance (mm)								Eccentricity (max) μm	Basic Load Rating Dynamic C(N) Static Co(N)		Nominal Part No.
Standard Type	Seal Type	Ball Circuit	Weight g	dr	Tolerance	D	Tolerance	L	Tolerance	B	Tolerance	W	D1				
LMB 4L	LMB 4L UU	4	17.5	6.350	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	12.700	$\begin{matrix} 0/-0.013 \\ \text{—} \end{matrix}$	34.925	$\begin{matrix} \text{—} \\ -0.3 \end{matrix}$	25.959	$\begin{matrix} \text{—} \\ -0.3 \end{matrix}$	0.992	11.906	15	323	530	LMB 4L
LMB 6L	LMB 6L UU	4	28	9.525	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	15.875	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	40.481	$\begin{matrix} \text{—} \\ -0.3 \end{matrix}$	32.298	$\begin{matrix} \text{—} \\ -0.3 \end{matrix}$	0.992	14.935	15	353	630	LMB 6L
LMB 8L	LMB 8L UU	4	80	12.700	$\begin{matrix} \text{—} \\ -0.010 \end{matrix}$	22.225	$\begin{matrix} \text{—} \\ -0.016 \end{matrix}$	60.325	$\begin{matrix} \text{—} \\ -0.3 \end{matrix}$	48.895	$\begin{matrix} \text{—} \\ -0.3 \end{matrix}$	1.168	20.853	15	813	1570	LMB 8L
LMB 10L	LMB 10L UU	4	160	15.875	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	28.575	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	71.438	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	56.080	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	1.422	26.899	15	1230	2350	LMB 10L
LMB 12L	LMB 12L UU	5	195	19.050	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	31.750	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	78.581	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	59.218	$\begin{matrix} \text{—} \\ 0 \end{matrix}$	1.422	29.870	20	1370	2470	LMB 12L
LMB 16L	LMB 16L UU	6	410	25.400	$\begin{matrix} \text{—} \\ -0.012 \end{matrix}$	39.688	$\begin{matrix} \text{—} \\ -0.019 \end{matrix}$	108.744	$\begin{matrix} \text{—} \\ -0.4 \end{matrix}$	89.139	$\begin{matrix} \text{—} \\ -0.4 \end{matrix}$	1.727	37.306	20	1570	3140	LMB 16L
LMB 20L	LMB 20L UU	6	820	31.750	$\begin{matrix} \text{—} \\ -0.015 \end{matrix}$	50.800	$\begin{matrix} \text{—} \\ -0.022 \end{matrix}$	127.000	$\begin{matrix} \text{—} \\ -0.4 \end{matrix}$	101.839	$\begin{matrix} \text{—} \\ -0.4 \end{matrix}$	1.727	47.904	25	2500	5490	LMB 20L
LMB 24L	LMB 24L UU	6	1250	38.100	$\begin{matrix} \text{—} \\ -0.015 \end{matrix}$	60.325	$\begin{matrix} \text{—} \\ -0.022 \end{matrix}$	144.463	$\begin{matrix} \text{—} \\ -0.4 \end{matrix}$	122.519	$\begin{matrix} \text{—} \\ -0.4 \end{matrix}$	2.184	56.870	25	3430	8040	LMB 24L
LMB 32L	LMB 32L UU	6	2350	50.800	$\begin{matrix} \text{—} \\ -0.015 \end{matrix}$	76.200	$\begin{matrix} \text{—} \\ 0/-0.025 \end{matrix}$	196.850	$\begin{matrix} \text{—} \\ -0.4 \end{matrix}$	162.138	$\begin{matrix} \text{—} \\ -0.4 \end{matrix}$	2.616	72.085	30	6080	15900	LMB 32L

SI Unit 1N≒0.102kgf

<IN'S Linear Ball Bearing System> <Flanged Linear Bushing>



IN'S[®]

<IN'S Linear Ball Bearing System> <Flanged Linear Bearing>

LMF <Built-in Synthetics Resin Retainer>

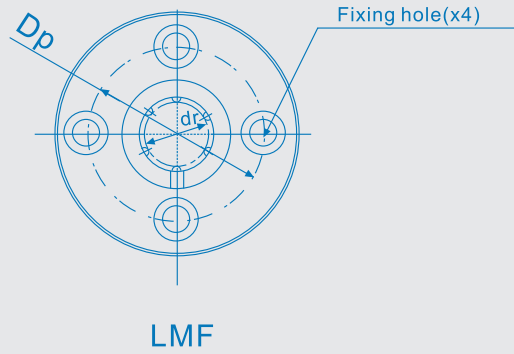
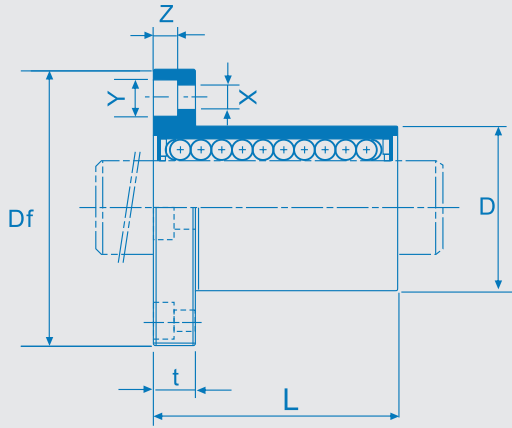
合成树脂保持器

LMFA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries



Nominal Part No.			Major Dimensions and Tolerance (mm)				Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange								Dynamic C(N)	Static Co(N)	
							Df	t	Dp	X	Y	Z					
LMF 6 UU		4	24	6	12	19	28	5	20	3.5	6	3.1	12	12	206	265	LMF 6
LMF 8S UU		4	32	8	15	17	32	5	24	3.5	6	3.1	12	12	176	216	LMF 8S
LMF 8 UU		4	37	8	15	24	32	5	24	3.5	6	3.1	12	12	274	392	LMF 8
LMF 10 UU		4	72	10	19	29	40	6	29	4.5	7.5	4.1	12	12	372	549	LMF 10
LMF 12 UU		4	76	12	21	30	42	6	32	4.5	7.5	4.1	12	12	510	784	LMF 12
LMF 13 UU		4	88	13	23	32	43	6	33	4.5	7.5	4.1	12	12	510	784	LMF 13
LMF 16 UU		5	120	16	28	37	48	6	38	4.5	7.5	4.1	12	12	774	1,180	LMF 16
LMF 20 UU		5	180	20	32	42	54	8	43	5.5	9	5.1	15	15	882	1,370	LMF 20
LMF 25 UU		6	340	25	40	59	62	8	51	5.5	9	5.1	15	15	980	1,570	LMF 25
LMF 30 UU		6	470	30	45	64	74	10	60	6.6	11	6.1	15	15	1,570	2,740	LMF 30
LMF 35 UU		6	650	35	52	70	82	10	67	6.6	11	6.1	20	20	1,670	3,140	LMF 35
LMF 40 UU		6	1,060	40	60	80	96	13	78	9	14	8.1	20	20	2,160	4,020	LMF 40
LMF 50 UU		6	2,200	50	80	100	116	13	98	9	14	8.1	20	20	3,820	7,940	LMF 50
LMF 60 UU		6	3,000	60	90	110	134	18	112	11	17	11.1	25	25	4,700	10,000	LMF 60

SI Unit 1N≒0.102kgf

LMK <Built-in Synthetics Resin Retainer>

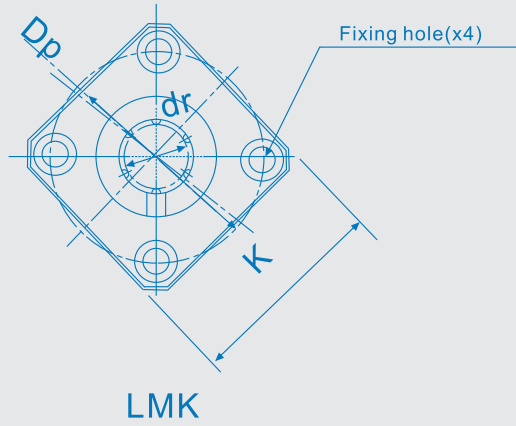
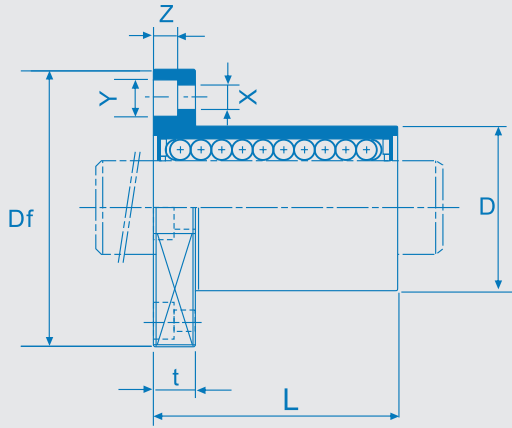
合成树脂保持器

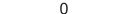
LMKA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries



Nominal Part No.				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)							Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange							Dynamic C(N)	Static Co(N)						
							Df	K	t	Dp	X	Y	Z								
LMK 6 UU		4	18	6		12		19		28	22	5	20	3.5	6	3.1	12	12	206	265	LMK 6
LMK 8S UU LMK 8 UU LMK 10 UU	LMK 8-A LMK 10-A	4	24	8		15		17		32	25	5	24	3.5	6	3.1	12	12	176	216	LMK 8S
		4	29	8		15		24		32	25	5	24	3.5	6	3.1	12	12	274	392	LMK 8
		4	52	10		19		29		40	30	6	29	4.5	7.5	4.1	12	12	372	549	LMK 10
LMK 12 UU LMK 13 UU LMK 16 UU	LMK 12-A LMK 16-A	4	57	12		21		30		42	32	6	32	4.5	7.5	4.1	12	12	510	784	LMK 12
		4	72	13		23		32		43	34	6	33	4.5	7.5	4.1	12	12	510	784	LMK 13
		5	104	16		28		37		48	37	6	38	4.5	7.5	4.1	12	12	774	1,180	LMK 16
LMK 20 UU LMK 25 UU LMK 30 UU	LMK 20-A LMK 25-A LMK 30-A	5	145	20		32		42		54	42	8	43	5.5	9	5.1	15	15	882	1,370	LMK 20
		6	300	25		40		59		62	50	8	51	5.5	9	5.1	15	15	980	1,570	LMK 25
		6	375	30		45		64		74	58	10	60	6.6	11	6.1	15	15	1,570	2,740	LMK 30
LMK 35 UU LMK 40 UU LMK 50 UU	LMK 35-A LMK 40-A	6	560	35		52		70		82	64	10	67	6.6	11	6.1	20	20	1,670	3,140	LMK 35
		6	880	40		60		80		96	75	13	78	9	14	8.1	20	20	2,160	4,020	LMK 40
		6	2000	50		80		100		116	92	13	98	9	14	8.1	20	20	3,820	7,940	LMK 50
LMK 60 UU		6	2560	60		90		110		134	106	18	112	11	17	11.1	25	25	4,700	10,000	LMK 60

SI Unit 1N≒0.102kgf

LMH <Built-in Synthetics Resin Retainer>

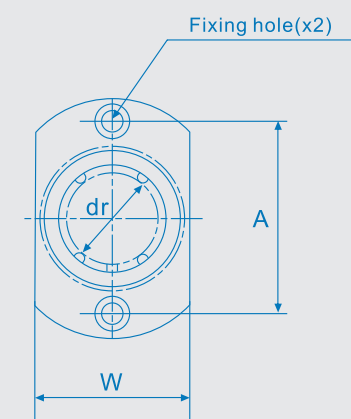
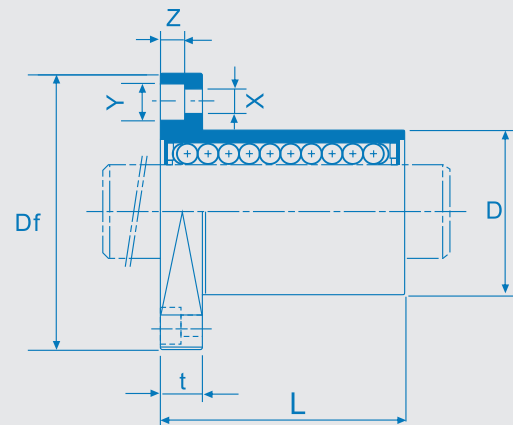
合成树脂保持器

LMHA <Stainless Steel Retainer>

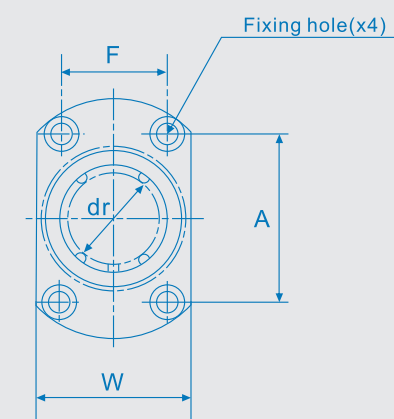
整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries



LMH 13 or less



LMH 16 or more

Nominal Part No.				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange								Dynamic C(N)	Static Co(N)						
							Df	W	t	A	F	X	Y	Z								
LMH 5 UU LMH 6 UU LMH 8 UU	LMH 8-A	4 4 4	21 33	5 6 8	 10 12 15	 15 19 24		25 28 32	16 18 21	5 5 5	17 20 24	— — —	3.5 3.5 3.5	6 6 6	3.1 3.1 3.1	12 12 12	12 12 12	167 206 274	206 265 392	LMH 5 LMH 6 LMH 8		
LMH 10 UU LMH 12 UU LMH 13 UU		LMH 10-A LMH 12-A	4 4 4	64 68 81	10 12 13	 19 21 23	 29 30 32	 ±0.3	40 42 43	25 27 29	6 6 6	29 32 33	— — —	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	12 12 12	12 12 12	372 510 510	549 784 784	LMH 10 LMH 12 LMH 13	
LMH 16 UU LMH 20 UU LMH 25 UU		LMH 16-A LMH 20-A LMH 25-A	5 5 6	112 167 325	16 20 25	 28 32 40	 37 42 59	 0 0 -0.019	48 54 62	34 38 46	6 8 8	31 36 40	22 24 32	4.5 5.5 5.5	7.5 9 9	4.1 5.1 5.1	12 15 15	12 15 15	774 882 980	1,180 1,370 1,570	LMH 16 LMH 20 LMH 25	
LMH 30 UU LMH 40 UU	LMH 30-A LMH 40-A	6 6	388 913	30 40	 45 60	 64	  0 0 -0.012 -0.022	74 96	51 66	10 13	49 64	35 45	6.6 9	11 14	6.1 8.1	15 17	15 17	1,570 2,160	2,740 4,020	LMH 30 LMH 40		

SI Unit 1N≒0.102kgf

LME F <Built-in Synthetics Resin Retainer>

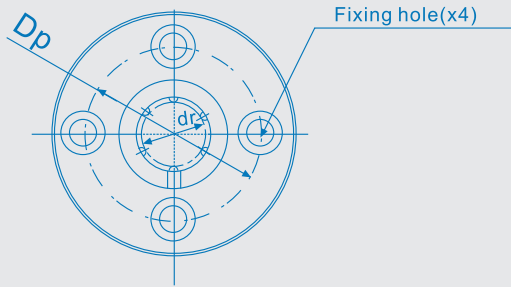
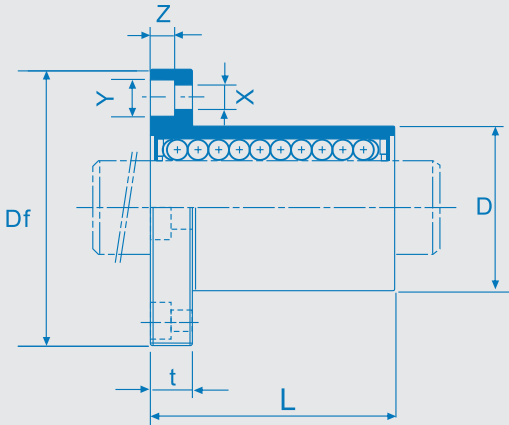
合成树脂保持器

LME FA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series generally used in Europe.



LME F

Nominal Part No.				Major Dimensions and Tolerance (mm)				Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange						Dynamic C(N)			Static Co(N)		
							Df	t	Dp	X	Y	Z						
LME F 8 UU LME F 12 UU	LME F 8-A LME F 12-A	4 4	41 80	8 12	+0.008 0 16 -0.013 0	25 32	32 5 24 42 6 32	3.5 6 3.1 4.5 7.5 4.1	12 12	12 12	265 510	402 784	LME F 8 LME F 12					
LME F 16 UU LME F 20 UU LME F 25 UU	LME F 16-A LME F 20-A LME F 25-A	5 5 6	103 182 335	16 20 25	+0.009 -0.001 +0.011 26 32 40 -0.016 0 0	36 45 58	46 54 62 6 8 8 36 43 51	4.5 5.5 5.5 7.5 9 9 4.1 5.1 5.1	12 15 15	12 15 15	578 862 980	892 1,370 1,570	LME F 16 LME F 20 LME F 25					
LME F 30 UU LME F 40 UU LME F 50 UU	LME F 30-A LME F 40-A	6 6 6	560 1,175 1,745	30 40 50	-0.001 +0.013 47 62 75 -0.019 0 -0.022	68 80 100	76 98 112 10 13 13 62 80 94	6.6 9 9 11 14 14 6.1 8.1 8.1	15 17 17	15 17 17	1,570 2,160 3,820	2,740 4,020 7,940	LME F 30 LME F 40 LME F 50					
LME F 60 UU		6	3,220	60	-0.002 0 -0.025 90 125	125	134 18 112 11 17 11.1	20	20	4,700	9,800	LME F 60						

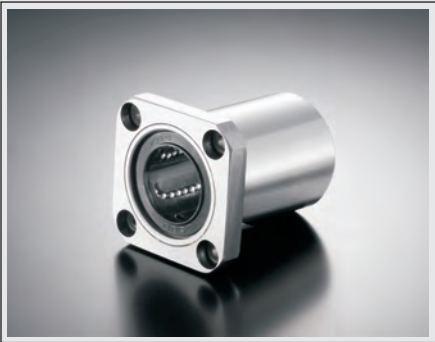
SI Unit 1N≒0.102kgf

LME K <Built-in Synthetics Resin Retainer>

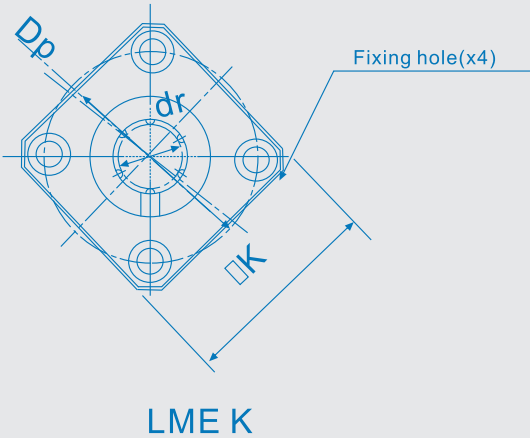
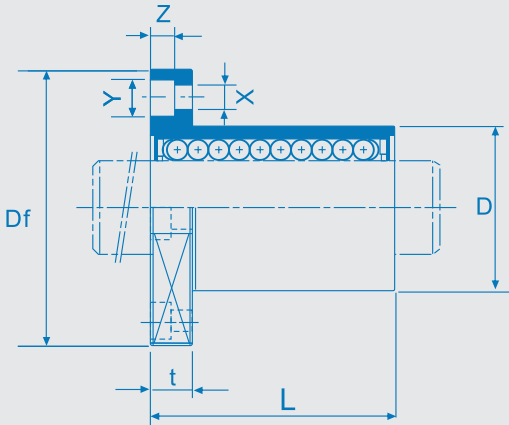
合成树脂保持器

LME KA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series generally used in Europe.



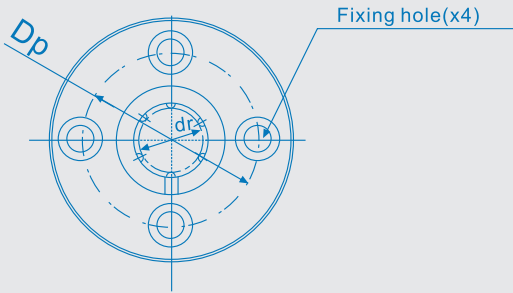
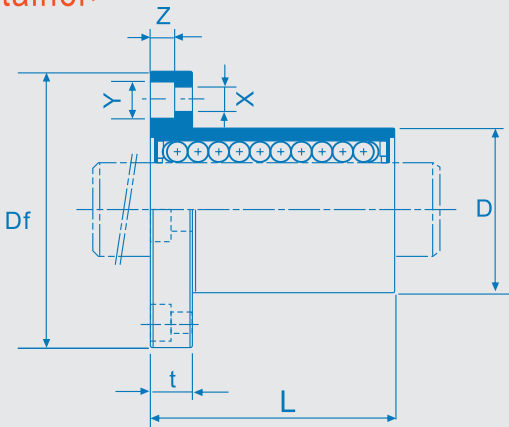
Nominal Part No.				Major Dimensions and Tolerance (mm)			Major Dimensions and Tolerance (mm)							Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange									Dynamic C(N)	Static Co(N)	
							Df	K	t	Dp	X	Y	Z					
LME K 8 UU	LME K 8-A	4	33	8 +0.008 0	16 -0.013 0	25 0	32	25	5	24	3.5	6	3.1	12	12	265	402	LME K 5
LME K 12 UU	LME K 12-A	4	64	12 0	22 0	32	42	32	6	32	4.5	7.5	4.1	12	12	510	784	LME K 8
LME K 16 UU	LME K 16-A	5	90	16 +0.009	26 -0.016	36	46	35	6	36	4.5	7.5	4.1	12	12	578	892	LME K 16
LME K 20 UU	LME K 20-A	5	147	20 -0.001	32 0	45	54	42	8	43	5.5	9	5.1	15	15	862	1,370	LME K 20
LME K 25 UU	LME K 25-A	6	295	25 +0.011	40 0	58 ±0.3	62	50	8	51	5.5	9	5.1	15	15	980	1,570	LME K 25
LME K 30 UU	LME K 30-A	6	465	30 -0.001	47 -0.019	68	76	60	10	62	6.6	11	6.1	15	15	1,570	2,740	LME K 30
LME K 40 UU	LME K 40-A	6	975	40 0	62 0	80	98	75	13	80	9	14	8.1	17	17	2,160	4,020	LME K 40
LME K 50 UU		6	1545	50 +0.013	75 -0.022	100	112	88	13	94	9	14	8.1	17	17	3,820	7,940	LME K 50
LME K 60 UU		6	2780	60 -0.002	90 0 -0.025	125 0	134	106	18	112	11	17	11.1	20	20	4,700	9,800	LME K 60

SI Unit 1N≒0.102kgf

LMB F <Built-in Synthetics Resin Retainer>



This type is an inch dimension series mainly used in the US.

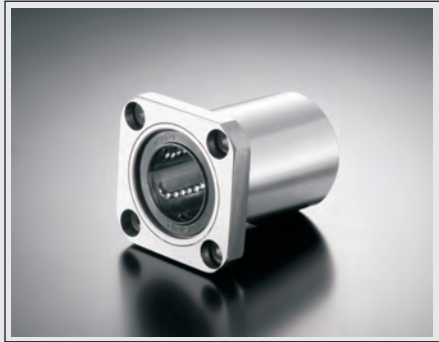


LMB F

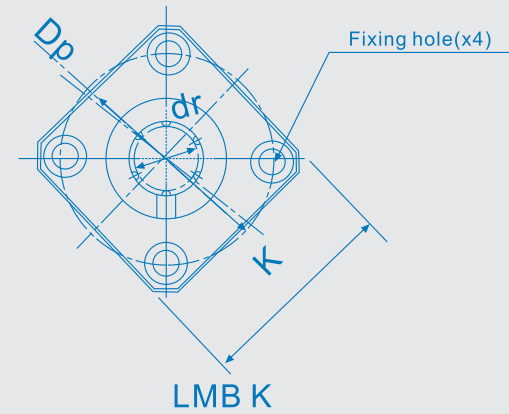
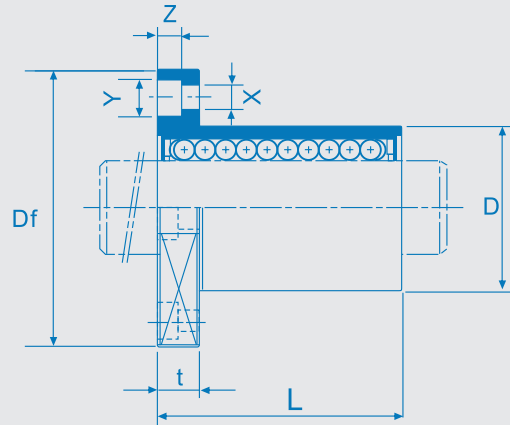
Nominal Shaft Diameter (Inch/mm)	Nominal Part No.				Major Dimensions and Tolerance (Inch/mm)				Major Dimensions and Tolerance (Inch/mm)							Eccentricity	Squareness	Basic Load Rating Dynamic C(N) Static Co(N)		Nominal shaft diameter Inch/ μ m	
	Standard Type	Seal Type	Ball Circuit	Weight g	dr	Tolerance	D	Tolerance	L	Tolerance	Flange										
											Df	t	Dp	X	Y						Z
1/4 6.350	LMB F 4	LMB F 4UU	4	32	.2500 6.350	0 -0.00050 0 -0.013	.5000 12.700	0 -0.00050 0 -0.013	.7500 19.050	0 -0.00050 0 -0.013	1.2500 31.750	0.219 5.556	.8750 22.225	.1560 3.969	.2500 6.350	.1410 3.572	.0005 12	.0005 12	206 265	1/4 6.350	
3/8 9.525	LMB F 6	LMB F 6UU	4	47	.3750 9.525	0 -0.00040	.6250 15.875	0 -0.00040	.8750 22.225	0 -0.00040	1.5000 38.100	.2500 6.350	1.0620 26.988	.1875 4.763	.2970 7.541	.1720 4.366	.0005 12	.0005 12	225 314	3/8 9.525	
1/2 12.700	LMB F 8	LMB F 8UU	4	88	.5000 12.700	0 -0.00090	.8750 22.225	0 -0.00065 0	1.2500 31.750	0 -0.00065 0	1.7500 44.450	.2500 6.350	1.312 33.338	.1875 4.763	.2970 7.541	.1720 4.366	.0005 12	.0005 12	510 784	1/2 12.700	
5/8 15.875	LMB F 10	LMB F 10UU	4	140	.6250 15.875	0 -0.00090	1.1250 28.575	0 -0.016	1.5000 38.100	0 -0.016	2.0000 50.800	.2500 6.350	1.5620 39.688	.1875 4.763	.2970 7.541	.1720 4.366	.0005 12	.0005 12	774 1,180	5/8 15.875	
3/4 19.050	LMB F 12	LMB F 12UU	5	190	.7500 19.050	0 -0.00040	1.2500 31.750	0 -0.00075	1.6250 41.275	0 -0.012	2.1875 55.563	.3125 7.938	1.7180 43.660	.2187 5.556	.3440 8.731	.2030 5.159	.0006 15	.0006 15	862 1,370	3/4 19.050	
1 25.400	LMB F 16	LMB F 16UU	6	325	1.0000 25.400	0 -0.0100	1.5625 39.688	0 -0.019	2.2500 57.150	0 -0.3	2.2500 63.500	.3125 7.938	2.0310 51.594	.2187 5.556	.3440 8.731	.2030 5.159	.0006 15	.0006 15	980 1,570	1 25.400	
1-1/4 31.750	LMB F 20	LMB F 20UU	6	665	1.2500 31.750	0 -0.0009	2.0000 50.800	0 -0.0009	2.6250 66.675	0 -0.0009	3.1250 79.375	.3750 9.525	2.5625 65.088	.2812 7.144	.4060 10.319	.2656 6.747	.0008 20	.0008 20	1,570 2,740	1-1/4 31.750	
1-1/2 38.100	LMB F 24	LMB F 24UU	6	1,100	1.5000 38.100	0 -0.00050 0	2.3750 60.325	0 -0.022	3.0000 76.200	0 -0.022	3.7500 95.250	.5000 12.700	3.0625 77.788	.3440 8.731	.5000 12.700	.3280 8.334	.0010 20	.0010 20	2,180 4,020	1-1/2 38.100	
2 50.800	LMB F 32	LMB F 32UU	6	1,760	2.0000 50.800	0 -0.0120	3.0000 76.200	0 -0.025	4.0000 101.600	0 -0.025	4.3750 111.125	.5000 12.700	3.6875 93.662	.3440 8.731	.5000 12.700	.3280 8.334	.0010 25	.0010 25	3,820 7,940	2 50.800	

SI Unit 1N≒0.225lbs
1kg≒2.205lbs

LMB K <Built-in Synthetics Resin Retainer> 合成树脂保持器



This type is an inch dimension series mainly used in the US.



Nominal Shaft Diameter (Inch/mm)	Nominal Part No.				Major Dimensions and Tolerance (Inch/mm)				Major Dimensions and Tolerance (Inch/mm)								Eccentricity	Squareness	Basic Load Rating		Nominal shaft diameter	
																						Dynamic C(N)
	Standard Type	Seal Type	Ball Circuit	Weight g	dr	Tolerance	D	Tolerance	L	Tolerance	Flange								Inch/μ m	Inch/μ m		
										Df	k	t	Dp	X	Y	Z						
1/4 6.350	LMB K 4	LMB K 4UU	4	25	.2500 6.350		.5000 12.700		.7500 19.050		1.2500 31.750	1.0000 25.400	0.219 5.556	.8750 22.225	.1560 3.969	.2500 6.350	.1410 3.572	.0005 12	.0005 12	206	265	1/4 6.350
3/8 9.525	LMB K 6	LMB K 6UU	4	32	.3750 9.525		.6250 15.875		.8750 22.225		1.5000 38.100	1.2500 31.750	.2500 6.350	1.0620 26.988	.1875 4.763	.2970 7.541	.1720 4.366	.0005 12	.0005 12	225	314	3/8 9.525
1/2 12.700	LMB K 8	LMB K 8UU	4	68	.5000 12.700		.8750 22.225		1.2500 31.750		1.7500 44.450	1.3750 34.925	.2500 6.350	1.312 33.338	.1875 4.763	.2970 7.541	.1720 4.366	.0005 12	.0005 12	510	784	1/2 12.700
5/8 15.875	LMB K 10	LMB K 10UU	4	124	.6250 15.875		1.1250 28.575		1.5000 38.100		2.0000 50.800	1.5000 38.100	.2500 6.350	1.5620 39.688	.1875 4.763	.2970 7.541	.1720 4.366	.0005 12	.0005 12	774	1,180	5/8 15.875
3/4 19.050	LMB K 12	LMB K 12UU	5	150	.7500 19.050		1.2500 31.750		1.6250 41.275		2.1875 55.563	1.6875 42.863	.3125 7.938	1.7180 43.660	.2187 5.556	.3440 8.731	.2030 5.159	.0006 15	.0006 15	862	1,370	3/4 19.050
1 25.400	LMB K 16	LMB K 16UU	6	280	1.0000 25.400		1.5625 39.688		2.2500 57.150		2.5000 63.500	2.0000 50.800	.3125 7.938	2.0310 51.594	.2187 5.556	.3440 8.731	.2030 5.159	.0006 15	.0006 15	980	1,570	1 25.400
1-1/4 31.750	LMB K 20	LMB K 20UU	6	580	1.2500 31.750		2.0000 50.800		2.6250 66.675		3.1250 79.375	2.5000 63.500	.3750 9.525	2.5625 65.088	.2812 7.144	.4060 10.319	.2656 6.747	.0008 20	.0008 20	1,570	2,740	1-1/4 31.750
1-1/2 38.100	LMB K 24	LMB K 24UU	6	930	1.5000 38.100		2.3750 60.325		3.0000 76.200		3.7500 95.250	3.0000 76.200	.5000 12.700	3.0625 77.788	.3440 8.731	.5000 12.700	.3280 8.334	.0010 25	.0010 25	2,180	4,020	1-1/2 38.100
2 50.800	LMB K 32	LMB K 32UU	6	1580	2.0000 50.800		3.0000 76.200		4.0000 101.600		4.3750 111.125	3.5000 88.900	.5000 12.700	3.6875 93.662	.3440 8.731	.5000 12.700	.3280 8.334	.0010 25	.0010 25	3,820	7,940	2 50.800

SI Unit 1N≒0.225lbs
1kg≒2.205lbs

LMF-L <Built-in Synthetics Resin Retainer>

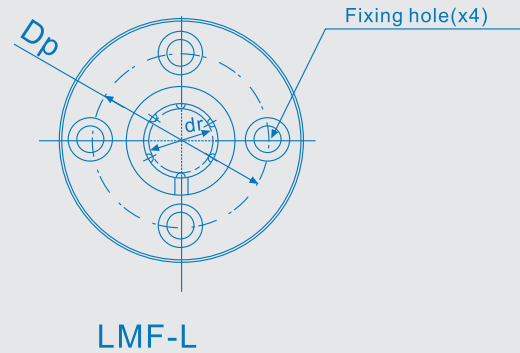
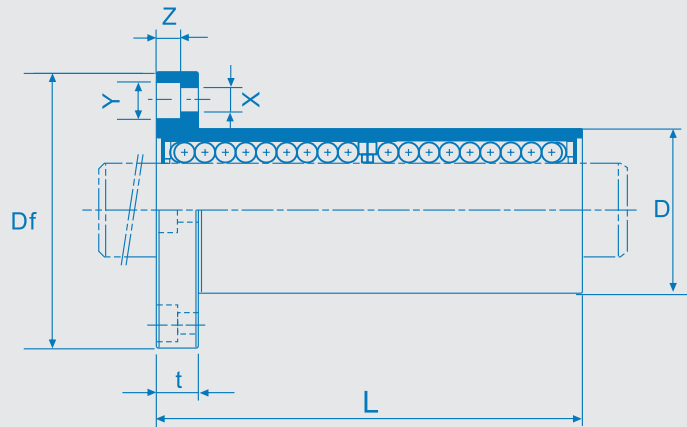
合成树脂保持器

LMF-LA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



Nominal Part No.				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange						Dynamic C(N)	Static Co(N)						
							Df	t	Dp	X	Y	Z								
LMF 6L UU		4	31	6	12	35	28	5	20	3.5	6.5	3.1	15	15	323	530	LMF 6L			
LMF 8L UU	LMF 8L-A	4	51	8	15	45	32	5	24	3.5	6.5	3.1	15	15	431	784	LMF 8L			
LMF 10L UU	LMF 10L-A	4	98	10	19	55	40	6	29	4.5	7.5	4.1	15	15	588	1,100	LMF 10L			
LMF 12L UU	LMF 12L-A	4	110	12	21	57	42	6	32	4.5	7.5	4.1	15	15	813	1,570	LMF 12L			
LMF 13L UU	LMF 16L-A LMF 20L-A	4	130	13	23	61	43	6	33	4.5	7.5	4.1	15	15	813	1,570	LMF 13L			
LMF 16L UU		5	190	16	28	70	48	6	38	4.5	7.5	4.1	15	15	1,230	2,350	LMF 16L			
LMF 20L UU		5	260	20	32	80	54	8	43	5.5	9	5.1	20	20	1,400	2,740	LMF 20L			
LMF 25L UU	LMF 25L-A	6	540	25	40	112	62	8	51	5.5	9	5.1	20	20	1,560	3,140	LMF 25L			
LMF 30L UU	LMF 30L-A	6	680	30	45	123	74	10	60	6.6	11	6.1	20	20	2,490	5,490	LMF 30L			
LMF 35L UU	LMF 35L-A	6	1,020	35	52	135	82	10	67	6.6	11	6.1	25	25	2,650	6,270	LMF 35L			
LMF 40L UU	LMF 40L-A	6	1,570	40	60	151	96	13	78	9	14	8.1	25	25	3,430	8,040	LMF 40L			
LMF 50L UU		6	3,600	50	80	192	116	13	98	9	14	8.1	25	25	6,080	15,900	LMF 50L			
LMF 60L UU		6	4,500	60	90	209	134	18	112	11	17	11.1	30	30	7,550	20,000	LMF 60L			

SI Unit 1N≒0.102kgf

LMK-L <Built-in Synthetics Resin Retainer>

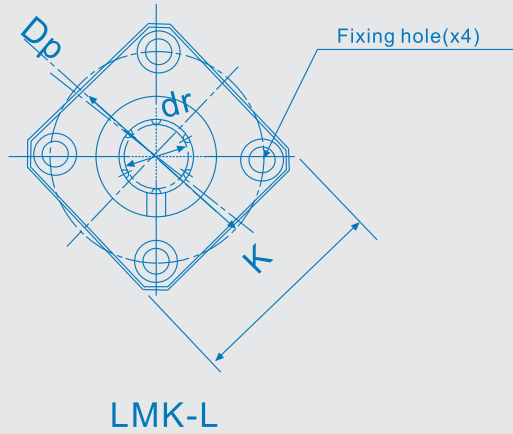
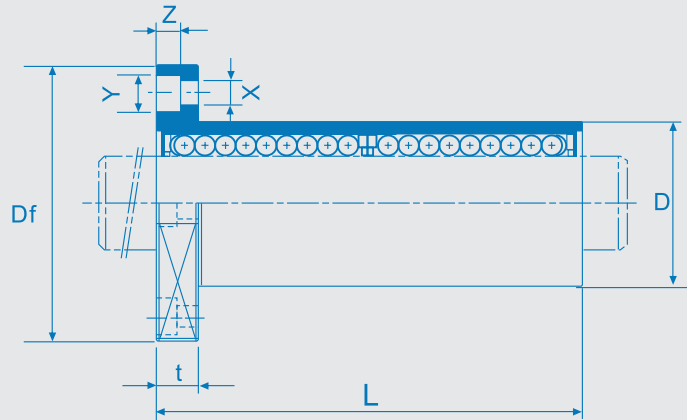
合成树脂保持器

LMK-LA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



Nominal Part No.				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)							Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange							Dynamic C(N)	Static Co(N)						
							Df	K	t	Dp	X	Y	Z								
LMK 6L UU		4	25	6	12	35	28	22	5	20	3.5	6	3.1	15	15	323	530	LMK 6L			
LMK 8L UU	LMK 8L-A	4	43	8	15	45	32	25	5	24	3.5	6	3.1	15	15	431	784	LMK 8L			
LMK 10L UU	LMK 10L-A	4	78	10	19	55	40	30	6	29	4.5	7.5	4.1	15	15	588	1,100	LMK 10L			
LMK 12L UU	LMK 12L-A	4	90	12	21	57	42	32	6	32	4.5	7.5	4.1	15	15	813	1,570	LMK 12L			
LMK 13L UU	LMK 16L-A LMK 20L-A	4	108	13	23	61	43	34	6	33	4.5	7.5	4.1	15	15	813	1,570	LMK 13L			
LMK 16L UU		5	165	16	28	70	48	37	6	38	4.5	7.5	4.1	15	15	1,230	2,350	LMK 16L			
LMK 20L UU		5	225	20	32	80	54	42	8	43	5.5	9	5.1	20	20	1,400	2,740	LMK 20L			
LMK 25L UU	LMK 25L-A	6	500	25	40	112	62	50	8	51	5.5	9	5.1	20	20	1,560	3,140	LMK 25L			
LMK 30L UU	LMK 30L-A	6	590	30	45	123	74	58	10	60	6.6	11	6.1	20	20	2,490	5,490	LMK 30L			
LMK 35L UU	LMK 35L-A	6	930	35	52	135	82	64	10	67	6.6	11	6.1	25	25	2,650	6,270	LMK 35L			
LMK 40L UU	LMK 40L-A	6	1,380	40	60	151	96	75	13	78	9	14	8.1	25	25	3,430	8,040	LMK 40L			
LMK 50L UU		6	3,400	50	80	192	116	92	13	98	9	14	8.1	25	25	6,080	15,900	LMK 50L			
LMK 60L UU		6	4,060	60	90	209	134	106	18	112	11	17	11.1	30	30	7,550	20,000	LMK 60L			

SI Unit 1N≒0.102kgf

LMH-L <Built-in Synthetics Resin Retainer>

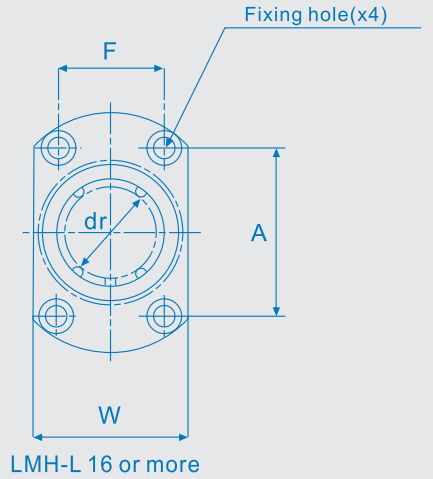
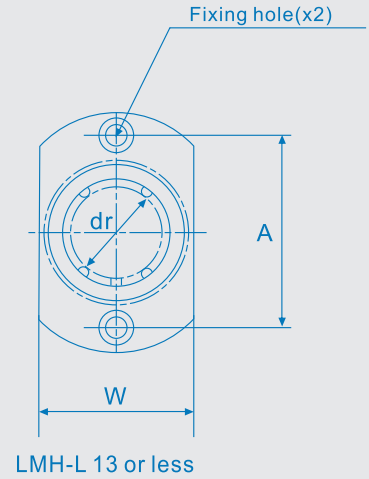
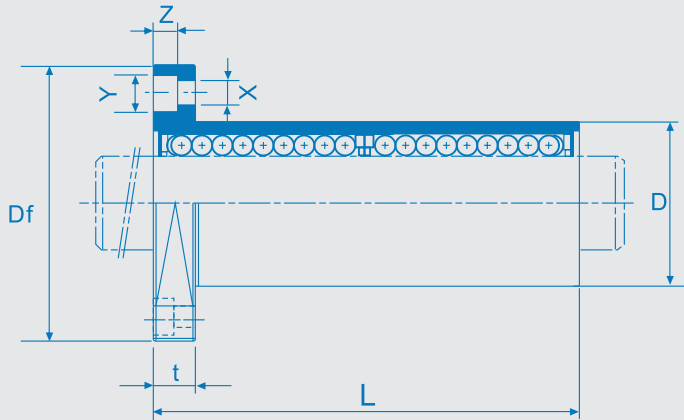
合成树脂保持器

LMH-LA <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



Nominal Part No.				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange								Dynamic C(N)	Static Co(N)						
							Df	W	t	A	F	X	Y	Z								
LMH 6L UU	LMH 8L-A LMH 10L-A	4	28	6	0 -0.013	35	28	18	5	20	—	3.5	6	3.1	15	15	323	530	LMH 6L			
LMH 8L UU		4	47	8	15	45		32	21	5	24	—	3.5	6	3.1	15	15	431	784	LMH 8L		
LMH 10L UU		4	90	10	19	55		40	25	6	29	—	4.5	7.5	4.1	15	15	588	1,100	LMH 10L		
LMH 12L UU	LMH 12L-A	4	102	12	0 -0.010	57	42	27	6	32	—	4.5	7.5	4.1	15	15	813	1,570	LMH 12L			
LMH 13L UU	LMH 16L-A	4	123	13	-0.016	61		43	29	6	33	—	4.5	7.5	4.1	15	15	813	1,570	LMH 13L		
LMH 16L UU		5	182	16	28	70		48	34	6	31	22	4.5	7.5	4.1	15	15	1,230	2,350	LMH 16L		
LMH 20L UU	LMH 20L-A	5	247	20	0 -0.012	80	54	38	8	36	24	5.5	9	5.1	20	20	1,400	2,740	LMH 20L			
LMH 25L UU	LMH 25L-A	6	525	25	-0.019	112		62	46	8	40	32	5.5	9	5.1	20	20	1,560	3,140	LMH 25L		
LMH 30L UU	LMH 30L-A	6	645	30		123		74	51	10	49	35	6.6	11	6.1	20	20	2,490	5,490	LMH 30L		
LMH 40L UU	LMH 40L-A	6	1423	40	0 -0.015	151	96	66	13	64	45	9	14	8.1	25	25	3,430	8,040	LMH 40L			
LMH 50L UU		6	3437	50	80	-0.022		192	116	86	13	80	56	9	14	8.1	25	25	6,080	15,900	LMH 50L	

SI Unit 1N≒0.102kgf

LME F-L <Built-in Synthetics Resin Retainer>

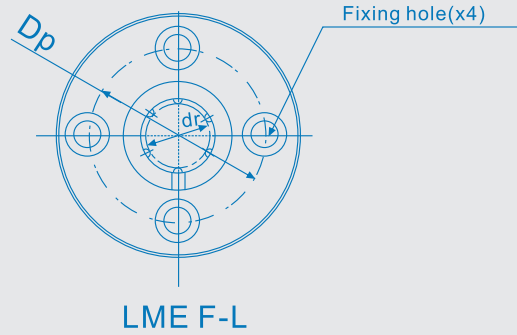
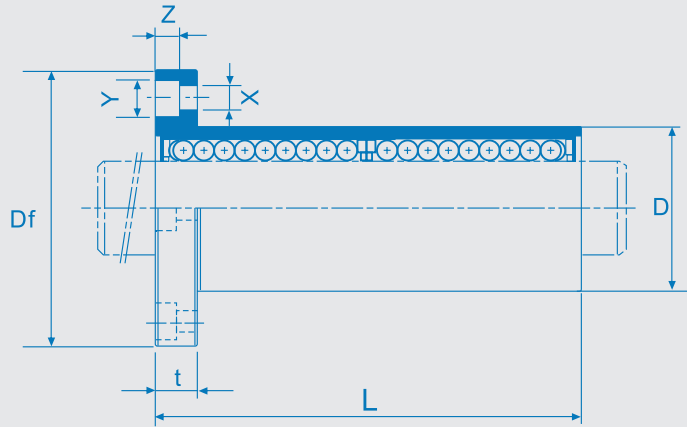
合成树脂保持器

LME F-A <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series generally used in Europe.



Nominal Part No.					Major Dimensions and Tolerance (mm)			Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.	
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr	D	L	Flange						Dynamic C(N)			Static Co(N)			
							Tolerance	Tolerance	Tolerance	Df	t	Dp					X		Y
LME F 8L UU LME F 12L UU	LME F 8L-A LME F 12L-A	4 4	59 110	8 12	$\begin{matrix} +0.009 \\ -0.001 \end{matrix}$	16 22	$\begin{matrix} 0 \\ -0.013 \\ 0 \end{matrix}$	46 61		32 42	5 6	24 32	3.5 4.5	6 7.5	3.1 4.1	15 15	421 813	804 1,570	LME F 8L LME F 12L
LME F 16L UU LME F 20L UU LME F 25L UU	LME F 16L-A LME F 20L-A LME F 25L-A	5 5 6	160 260 540	16 20 25	$\begin{matrix} +0.011 \\ -0.001 \end{matrix}$	26 32 40	$\begin{matrix} -0.016 \\ 0 \end{matrix}$	68 80 112	±0.3	46 54 62	6 8 8	36 43 51	4.5 5.5 5.5	7.5 9 9	4.1 5.1 5.1	15 17 17	921 1,370 1,570	1,780 2,740 3,140	LME F 16L LME F 20L LME F 25L
LME F 30L UU LME F 40L UU LME F 50L UU	LME F 30L-A LME F 40L-A	6 6 6	815 1,805 2,820	30 40 50	$\begin{matrix} -0.002 \\ 0 \\ +0.016 \end{matrix}$	47 62 75	$\begin{matrix} -0.019 \\ 0 \\ -0.022 \end{matrix}$	123 151 192		76 98 112	10 13 13	62 80 94	6.6 9 9	11 14 14	6.1 8.1 8.1	17 20 20	2,500 3,430 6,080	5,490 8,040 15,900	LME F 30L LME F 40L LME F 50L
LME F 60L UU		6	4,920	60	$\begin{matrix} -0.004 \\ 0 \end{matrix}$	90	$\begin{matrix} 0 \\ -0.025 \end{matrix}$	209		134	18	112	11	17	11.1	25	7,550	20,000	LME F 60L

SI Unit 1N≒0.102kgf

LME K-L <Built-in Synthetics Resin Retainer>

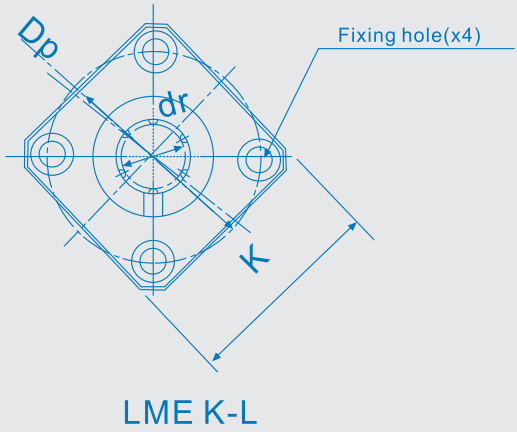
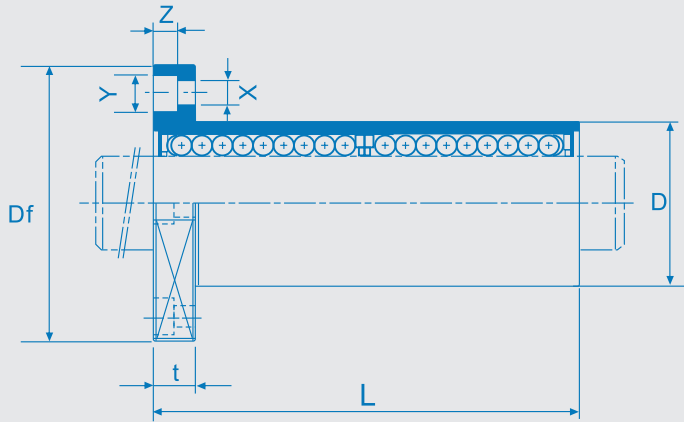
合成树脂保持器

LME K-A <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series generally used in Europe.



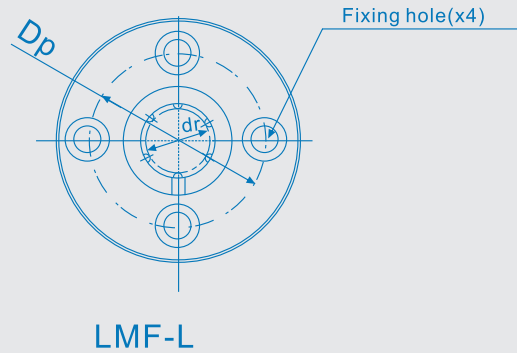
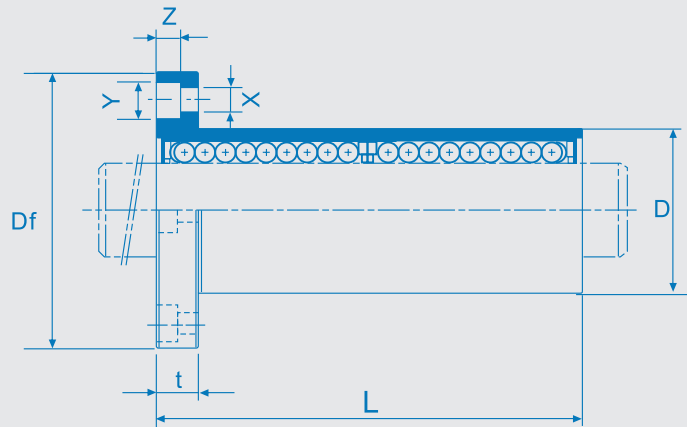
Nominal Part No.		Major Dimensions and Tolerance (mm)				Major Dimensions and Tolerance (mm)								Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.	
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange									Dynamic C(N)	Static Co(N)		
							Df	K	t	Dp	X	Y	Z						
LME K 8L UU LME K 12L UU	LME K 8L-A LME K 12L-A	4 4	51 90	8 12	$\begin{matrix} \overline{+0.009} \\ -0.001 \end{matrix}$ $\begin{matrix} \overline{0} \\ -0.013 \\ \overline{0} \end{matrix}$	46 61		32 42	25 32	5 6	24 32	3.5 4.5	6 7.5	3.1 4.1	15 15	15 15	421 813	804 1,570	LME K 8L LME K 12L
LME K 16L UU LME K 20L UU LME K 25L UU	LME K 16L-A LME K 20L-A LME K 25L-A	5 5 6	135 225 500	16 20 25	$\begin{matrix} \overline{+0.011} \\ -0.001 \end{matrix}$ $\begin{matrix} \overline{-0.016} \\ \overline{0} \end{matrix}$ $\begin{matrix} \overline{+0.013} \\ 0 \end{matrix}$	68 80 112		46 54 62	35 42 50	6 8 8	36 43 51	4.5 5.5 5.5	7.5 9 9	4.1 5.1 5.1	15 17 17	15 17 17	921 1,370 1,570	1,780 2,740 3,140	LME K 16L LME K 20L LME K 25L
LME K 30L UU LME K 40L UU LME K 50L UU	LME K 30L-A LME K 40L-A	6 6 6	720 1,600 2,620	30 40 50	$\begin{matrix} \overline{-0.002} \\ \overline{0} \\ -0.022 \end{matrix}$ $\begin{matrix} \overline{-0.019} \\ \overline{0} \\ -0.022 \end{matrix}$ $\begin{matrix} \overline{+0.016} \\ 0 \end{matrix}$	123 151 192		76 98 112	60 75 88	10 13 13	62 80 94	6.6 9 9	11 14 14	6.1 8.1 8.1	17 20 20	17 20 20	2,500 3,430 6,080	5,490 8,040 15,900	LME K 30L LME K 40L LME K 50L
LME K 60L UU		6	4,480	60	$\begin{matrix} \overline{-0.004} \\ \overline{0} \\ -0.025 \end{matrix}$	209		134	106	18	112	11	17	11.1	25	25	7,550	20,000	LME K 60L

SI Unit 1N≒0.102kgf

LMBF-L <Built-in Synthetics Resin Retainer>
合成树脂保持器



This type is a metric dimension series widely used in Japan and other countries.



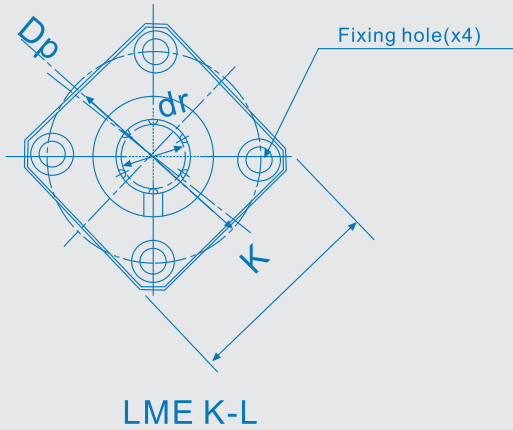
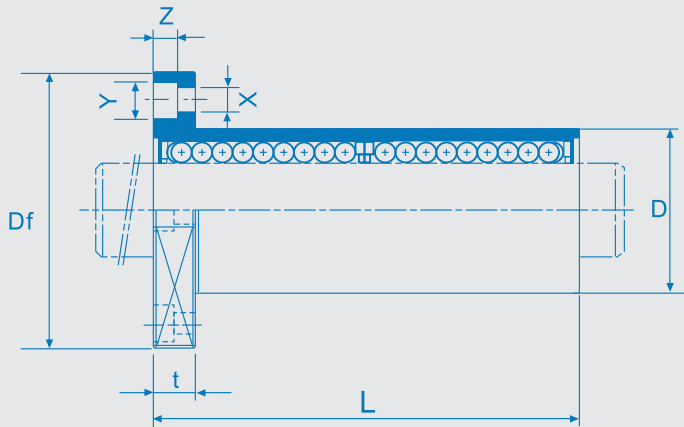
Nominal Part No.				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Standard Type	Seal Type	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange						Dynamic C(N)	Static Co(N)						
							Df	t	Dp	X	Y	Z								
LMBF 4L	LMBF 4L UU	4	40	6.350		12.700	0/-0.013	34.925		31.750	5.556	22.225	3.969	6.350	3.572	15	15	323	530	LMBF 4L
LMBF 6L	LMBF 6L UU	4	60	9.525	0	15.875		40.481		38.100	6.350	26.988	4.763	7.541	4.366	15	15	353	630	LMBF 6L
LMBF 8L	LMBF 8L UU	4	126	12.700	-0.010	22.225		60.325	0	44.450	6.350	33.338	4.763	7.541	4.366	15	15	813	1570	LMBF 8L
LMBF 10L	LMBF 10L UU	5	215	15.875		28.575		71.438	-0.016	50.800	6.350	39.688	4.763	7.541	4.366	15	15	1230	2350	LMBF 10L
LMBF 12L	LMBF 12L UU	5	280	19.050	0	31.750		78.581		55.563	7.938	43.656	5.556	8.731	5.159	20	20	1370	2740	LMBF 12L
LMBF 16L	LMBF 16L UU	5	515	25.400	-0.012	39.688		108.744		63.500	7.938	51.594	5.556	8.731	5.159	20	20	1570	3140	LMBF 16L
LMBF 20L	LMBF 20L UU	5	1220	31.750		50.800		127.000	±0.3	79.375	9.525	65.088	7.144	10.319	6.747	25	25	2500	5490	LMBF 20L
LMBF 24L	LMBF 24L UU	5	1630	38.100	-0.015	60.325		144.463	0	95.250	12.700	77.788	8.731	12.700	8.334	25	25	3430	8040	LMBF 24L
LMBF 32L	LMBF 32L UU	5	2800	50.800		76.200		196.850	0/-0.025	111.125	12.700	93.662	8.731	12.700	8.334	30	30	6080	15900	LMBF 32L

SI Unit 1N≒0.102kgf

LMBK-L<Built-in Synthetics Resin Retainer>
合成树脂保持器



This type is a metric dimension series generally used in Europe.



Nominal Part No.				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μ m	Squareness μ m	Basic Load Rating		Nominal Part No.
Standard Type	Seal Type	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange								Dynamic C(N)	Static Co(N)						
							Df	K	t	Dp	X	Y	Z									
LMBK 4L	LMBK 4L UU	4	33	6.350		12.700	0/-0.013	34.925		31.750	25.400	5.556	22.225	3.969	6.350	3.572	15	15	323	530	LMBK 4L	
LMBK 6L	LMBK 6L UU	4	45	9.525		15.875		40.481		38.100	31.750	6.350	26.988	4.763	7.541	4.366	15	15	353	630	LMBK 6L	
LMBK 8L	LMBK 8L UU	4	106	12.700		22.225		60.325		44.450	34.925	6.350	33.338	4.763	7.541	4.366	15	15	813	1570	LMBK 8L	
LMBK 10L	LMBK 10L UU	5	200	15.875		28.575		71.438		50.800	38.100	6.350	39.688	4.763	7.541	4.366	15	15	1230	2350	LMBK 10L	
LMBK 12L	LMBK 12L UU	5	240	19.050		31.750		78.581		55.563	42.683	7.938	43.656	5.556	8.731	5.159	20	20	1370	2740	LMBK 12L	
LMBK16L	LMBK 16L UU	5	470	25.400		39.688		108.744	±0.3	63.500	50.800	7.938	51.594	5.556	8.731	5.159	20	20	1570	3140	LMBK 16L	
LMBK 20L	LMBK 20L UU	5	935	31.750		50.800		127.000		79.375	63.500	9.525	65.088	7.144	10.319	6.747	25	25	2500	5490	LMBK 20L	
LMBK 24L	LMBK 24L UU	5	1460	38.100		60.325		144.463		95.250	76.200	12.700	77.788	8.731	12.700	8.334	25	25	3430	8040	LMBK 24L	
LMBK 32L	LMBK 32L UU	5	2620	50.800		76.200	0/-0.025	196.850		111.125	88.900	12.700	93.662	8.731	12.700	8.334	30	30	6080	15900	LMBK 32L	

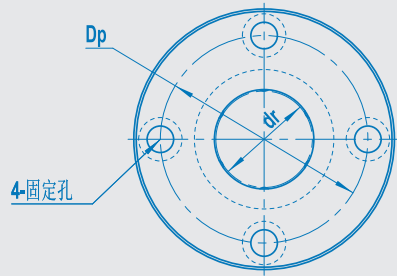
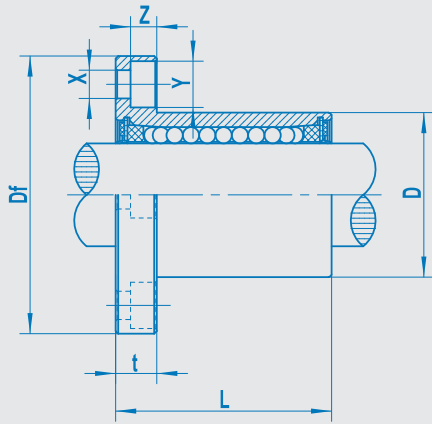
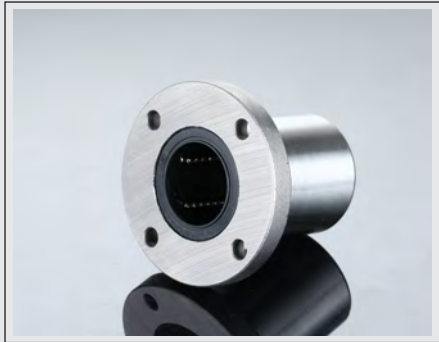
SI Unit 1N≒0.102kgf

LMF-UU-RB <Built-in Synthetics Resin Retainer>

合成树脂保持器

LMF-A-RB <Stainless Steel Retainer>

整体不锈钢保持器



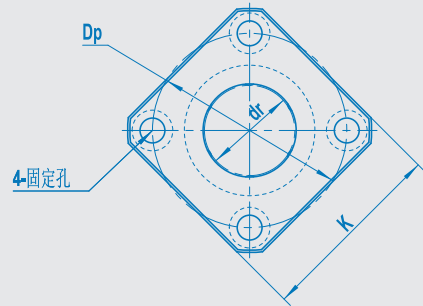
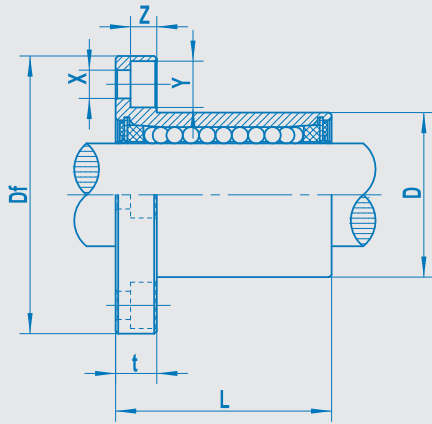
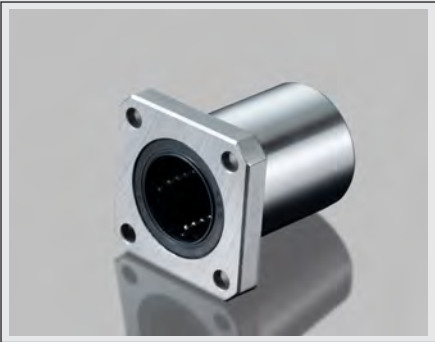
Nominal Part No				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr	D	L	Flange													
							Tolerance	Tolerance	Tolerance	Df	t	Dp	X	Y	Z					
LMF8UU-RB	LMF8-A-RB	4	37	8	0	15	-0.018	24		32	5	24	3.5	6	3.1	12	12	265	380	LMF8-RB
LMF10UU-RB	LMF10-A-RB	4	72	10	0	19		29		40	6	29	4.5	7.5	4.1	12	12	370	545	LMF10-RB
LMF12UU-RB	LMF12-A-RB	4	76	12	0 -0.009	21	0 -0.021	30		42	6	32	4.5	7.5	4.1	12	12	410	595	LMF12-RB
LMF16UU-RB	LMF16-A-RB	5	120	16		28		37	±0.3	48	6	38	4.5	7.5	4.1	12	12	775	1180	LMF16-RB
LMF20UU-RB	LMF20-A-RB	5	180	20		32		42		54	8	43	5.5	9	5.1	15	15	882	1370	LMF20-RB
LMF25UU-RB	LMF25-A-RB	6	340	25	0	40	0	59		62	8	51	5.5	9	5.1	15	15	980	1570	LMF25-RB
LMF30UU-RB	LMF30-A-RB	6	470	30	0 -0.010	45	0 -0.025	64		74	10	60	6.6	11	6.1	15	15	1570	2740	LMF30-RB

LMK-UU-RB <Built-in Synthetics Resin Retainer>

合成树脂保持器

LMK-A-RB <Stainless Steel Retainer>

整体不锈钢保持器



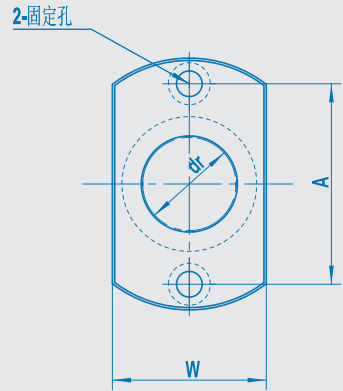
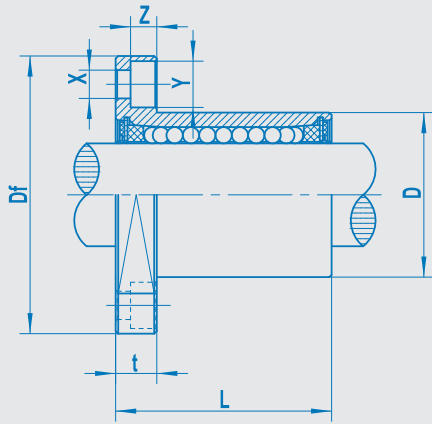
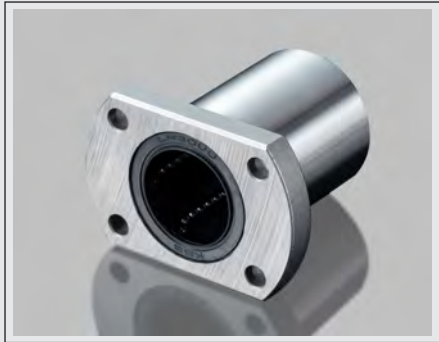
Nominal Part No				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr	D	L	Flange															
							Tolerance	Tolerance	Tolerance	Df	K	t	Dp	X	Y	Z						
LMK8UU-RB	LMK8-A-RB	4	29	8	15	24		32	25	5	24	3.5	6	3.1	12	12	265	380	LMK8-RB			
LMK10UU-RB	LMK10-A-RB	4	52	10	19	29		40	30	6	29	4.5	7.5	4.1	12	12	370	545	LMK10-RB			
LMK12UU-RB	LMK12-A-RB	4	57	12	21	30		42	32	6	32	4.5	7.5	4.1	12	12	410	595	LMK12-RB			
LMK16UU-RB	LMK16-A-RB	5	104	16	28	37	±0.3	48	37	6	38	4.5	7.5	4.1	12	12	775	1180	LMK16-RB			
LMK20UU-RB	LMK20-A-RB	5	145	20	32	42		54	42	8	43	5.5	9	5.1	15	15	882	1370	LMK20-RB			
LMK25UU-RB	LMK25-A-RB	6	300	25	40	59		62	50	8	51	5.5	9	5.1	15	15	980	1570	LMK25-RB			
LMK30UU-RB	LMK30-A-RB	6	375	30	45	64		74	58	10	60	6.6	11	6.1	15	15	1570	2740	LMK30-RB			

LMH-UU-RB <Built-in Synthetics Resin Retainer>

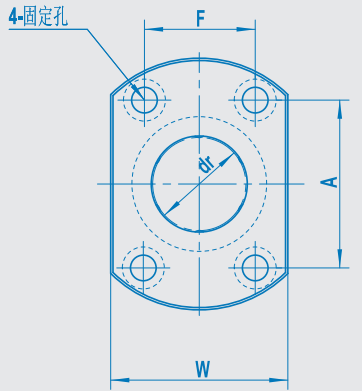
合成树脂保持器

LMH-A-RB <Stainless Steel Retainer>

整体不锈钢保持器



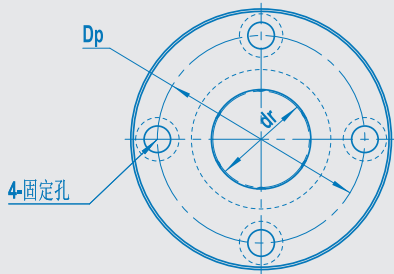
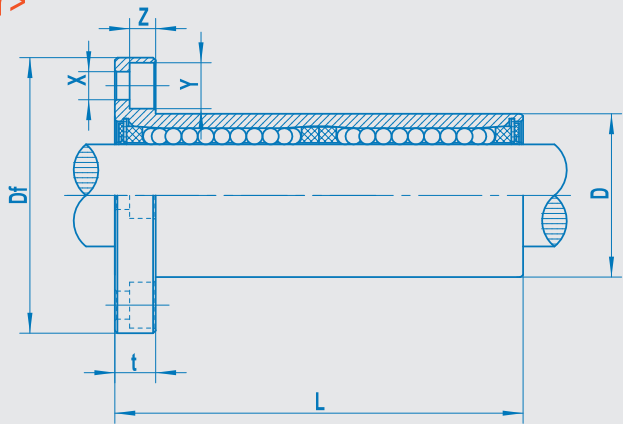
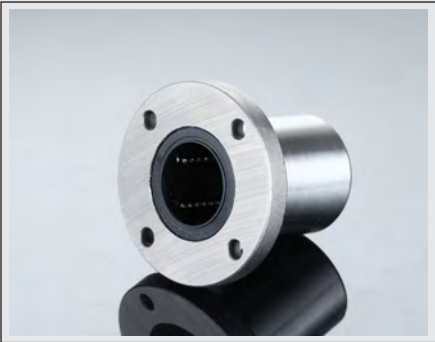
LMH13-UU-RB
及以下



LMH16-UU-RB
及以上

Nominal Part No				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr	D	L	Flange															
							Tolerance	Tolerance	Tolerance	Df	W	t	A	F	X	F	Z					
LMH8UU-RB	LMH8-A-RB	4	33	8	15	24		32	21	5	24	-	3.5	6	3.1	12	12	265	380	LMH8-RB		
LMH10UU-RB	LMH10-A-RB	4	64	10	19	29		40	25	6	29	-	4.5	7.5	4.1	12	12	370	545	LMH10-RB		
LMH12UU-RB	LMH12-A-RB	4	68	12 ⁰ -0.009	21 ⁰ -0.021	30		42	27	6	32	-	4.5	7.5	4.1	12	12	410	595	LMH12-RB		
LMH16UU-RB	LMH16-A-RB	5	112	16	28	37	±0.3	48	34	6	31	22	4.5	7.5	4.1	12	12	775	1180	LMH16-RB		
LMH20UU-RB	LMH20-A-RB	5	167	20	32	42		54	38	8	36	24	5.5	9	5.1	15	15	882	1370	LMH20-RB		
LMH25UU-RB	LMH25-A-RB	6	325	25 ⁰ -0.010	40 ⁰ -0.025	59		62	46	8	40	32	5.5	9	5.1	15	15	980	1570	LMH25-RB		
LMH30UU-RB	LMH30-A-RB	6	388	30	45	64		74	51	10	49	35	6.6	11	6.1	15	15	1570	2740	LMH30-RB		

LMF-LUU-RB <Built-in Synthetics Resin Retainer>
 合成树脂保持器
 LMF-L-A-RB <Stainless Steel Retainer>
 整体不锈钢保持器



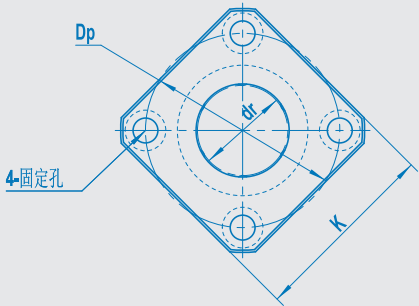
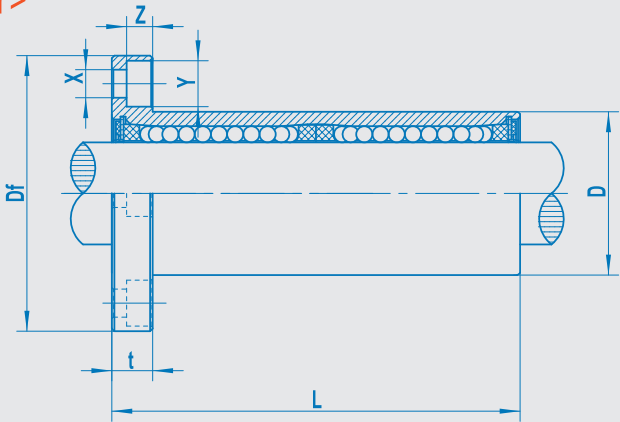
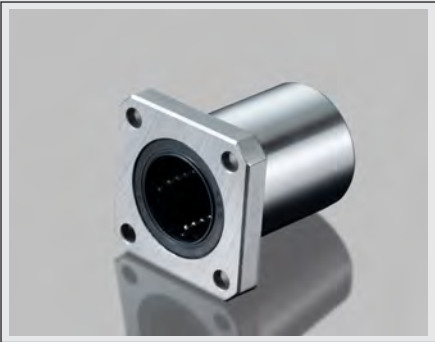
Nominal Part No				Major Dimensions and Tolerance (mm)			Major Dimensions and Tolerance (mm)							Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange											
							Df	t	Dp	X	F	Z						
LMF8LUU-RB	LMF8L-A-RB	4	51	8	15	45	32	5	24	3.5	6	3.1	15	15	430	780	LMF8L-RB LMF10L-RB LMF12L-RB	
LMF10LUU-RB	LMF10L-A-RB	4	98	10	19	55	40	6	29	4.5	7.5	4.1	15	15	585	1100		
LMF12LUU-RB	LMF12L-A-RB	4	110	12	21	57	42	6	32	4.5	7.5	4.1	15	15	655	1200		
LMF16LUU-RB	LMF16L-A-RB	5	190	16	28	70	48	6	38	4.5	7.5	4.1	15	15	1230	2350	LMF16L-RB LMF20L-RB LMF25L-RB	
LMF20LUU-RB	LMF20L-A-RB	5	260	20	32	80	54	8	43	5.5	9	5.1	20	20	1400	2740		
LMF25LUU-RB	LMF25L-A-RB	6	540	25	40	112	62	8	51	5.5	9	5.1	20	20	1560	3140		
LMF30LUU-RB	LMF30L-A-RB	6	680	30	45	123	74	10	60	6.6	11	6.1	20	20	2490	5490	LMF30L-RB	

LMK-LUU-RB <Built-in Synthetics Resin Retainer>

合成树脂保持器

LMK-L-A-RB <Stainless Steel Retainer>

整体不锈钢保持器



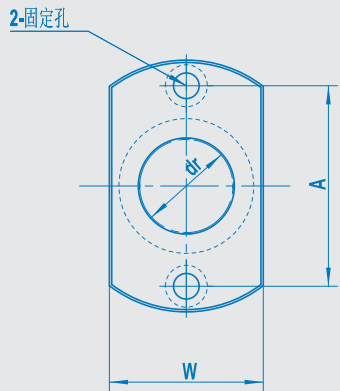
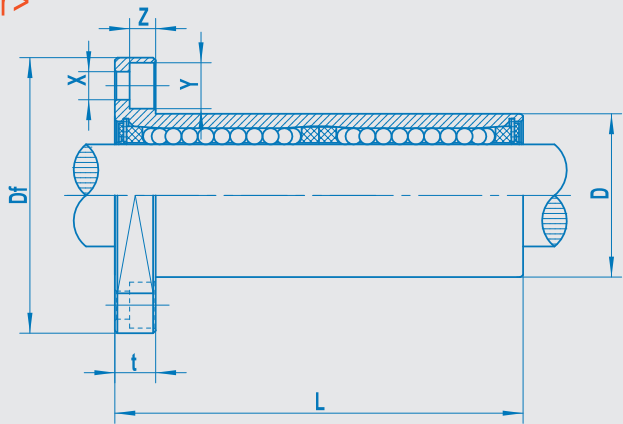
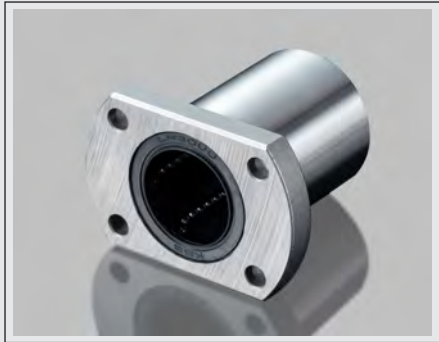
Nominal Part No				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange															
							Df	K	t	DP	X	Y	Z									
LMK8LUU-RB	LMK8L-A-RB	4	43	8	0	15	-0.018	45		32	25	5	24	3.5	6	3.1	15	15	430	780	LMK8L-RB LMK10L-RB LMK12L-RB	
LMK10LUU-RB	LMK10L-A-RB	4	78	10	0	19		55		40	30	6	29	4.5	7.5	4.1	15	15	585	1100		
LMK12LUU-RB	LMK12L-A-RB	4	90	12	-0.009	21	0	57	-0.021	42	32	6	32	4.5	7.5	4.1	15	15	655	1200		
LMK16LUU-RB	LMK16L-A-RB	5	165	16		28		70	±0.3	48	37	6	38	4.5	7.5	4.1	15	15	1230	2350	LMK16L-RB LMK20L-RB LMK25L-RB	
LMK20LUU-RB	LMK20L-A-RB	5	225	20		32		80		54	42	8	43	5.5	9	5.1	20	20	1400	2740		
LMK25LUU-RB	LMK25L-A-RB	6	500	25	0	40	0	112		62	50	8	51	5.5	9	5.1	20	20	1560	3140		
LMK30LUU-RB	LMK30L-A-RB	6	590	30	-0.010	45	-0.025	123		74	58	10	60	6.6	11	6.1	20	20	2490	5490	LMK30L-RB	

LMH-LUU-RB <Built-in Synthetics Resin Retainer>

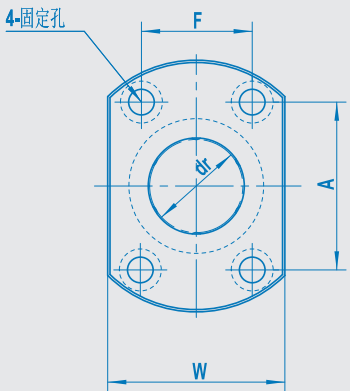
合成树脂保持器

LMH-L-A-RB <Stainless Steel Retainer>

整体不锈钢保持器



LMH13-UU-RB
及以下



LMH16-UU-RB
及以上

Nominal Part No				Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange															
							Df	K	t	DP	F	X	Y	Z								
LMH8LUU-RB	LMH8L-A-RB	4	43	8		15		32	21	5	24	-	3.5	6	3.1	15	15	265	380	LMH8L-RB LMH10L-RB LMH12L-RB		
LMH10LUU-RB	LMH10L-A-RB	4	90	10		19		40	25	6	29	-	4.5	7.5	4.1	15	15	370	545			
LMH12LUU-RB	LMH12L-A-RB	4	102	12		21		42	27	6	32	-	4.5	7.5	4.1	15	15	410	595			
LMH16LUU-RB	LMH16L-A-RB	5	182	16		28		48	34	6	38	22	4.5	7.5	4.1	15	15	775	1180	LMH16L-RB LMH20L-RB LMH25L-RB		
LMH20LUU-RB	LMH20L-A-RB	5	247	20		32		54	38	8	43	24	5.5	9	5.1	20	20	882	1370			
LMH25LUU-RB	LMH25L-A-RB	6	525	25		40		62	46	8	51	32	5.5	9	5.1	20	20	980	1570			
LMH30LUU-RB	LMH30L-A-RB	6	645	30		45		74	51	10	60	35	6.6	11	6.1	20	20	1570	2740	LMH30L-RB		

LMF/K-UU-E <Built-in Synthetics Resin Retainer>

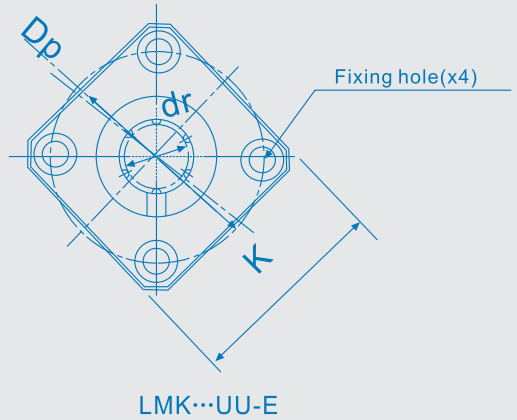
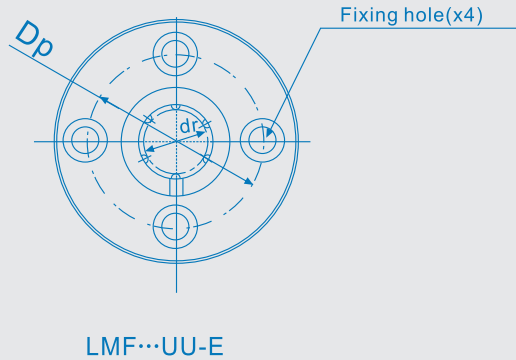
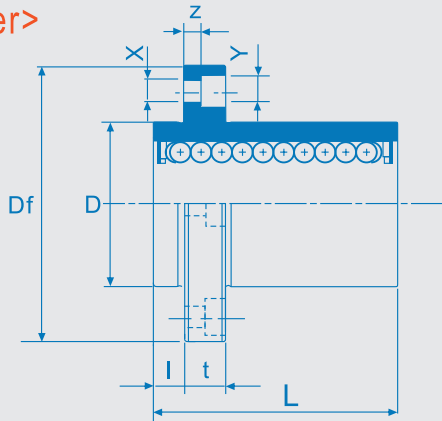
合成树脂保持器

LMF/K-E-A <Stainless Steel Retainer>

整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



Part No.																								
Nominal shaft diameter mm	Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Major dimensions and tolerance																Eccentricity	Squareness	Basic load rating		Weight	Nominal shaft diameter mm
	LMF/K···UU-E	LMF/K···E-A	dr	D		L	Flange						Flange								dynamic C(N)	Static Co(N)		
				Tolerance μ m	Tolerance μ m		I mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm										
6	LMF/K6UU-E		6	0 -9	12	0	19	±300	5	28	22	5	20	3.5	6	3.1	12	12	206	265	24 18	6		
8	LMF/K8UU-E	LMF/K8-E-A	8		15	-13	24		5	32	25	5	24	3.5	6	3.1			274	392	37 29	8		
10	LMF/K10UU-E	LMF/K10-E-A	10		19	0	29		6	40	30	6	29	4.5	7.5	4.1			372	549	72 52	10		
12	LMF/K12UU-E	LMF/K12-E-A	12		21		0		30	6	42	32	6	32	4.5	7.5			4.1	510	784	76 57	12	
13	LMF/K13UU-E		13		23		-16		32	6	43	34	6	33	4.5	7.5			4.1	510	784	88 72	13	
16	LMF/K16UU-E	LMF/K16-E-A	16		28				37	6	48	37	6	38	4.5	7.5			4.1	774	1,180	120 104	16	
20	LMF/K20UU-E	LMF/K20-E-A	20	0 -10	32	0	42		8	54	42	8	43	5.5	9	5.1	15	15	882	1,370	180 145	20		
25	LMF/K25UU-E	LMF/K25-E-A	25		40		-19		59	8	62	50	8	51	5.5	9			5.1	980	1,570	340 300	25	
30	LMF/K30UU-E	LMF/K30-E-A	30		45				64	10	74	58	10	60	6.6	11			6.1	1,570	2,740	470 375	30	
35	LMF/K35UU-E	LMF/K35-E-A	35	0 -12	52	0 -22	70		10	82	64	10	67	6.6	11	6.1	20	20	1,670	3,140	650 560	35		
40	LMF/K40UU-E	LMF/K40-E-A	40		60				80	13	96	75	13	78	9	14			8.1	2,160	4,020	1,060 880	40	
50	LMF/K50UU-E		50		80				100	13	116	92	13	98	9	14			8.1	3,820	7,940	2,200 2,000	50	
60	LMF/K60UU-E		60	0 -15	90	0 -25	110			18	134	106	18	112	11	17	11.1	25	25	4,700	10,000	3,000 2,560	60	

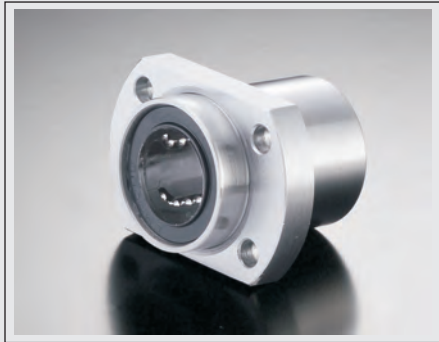
SI Unit 1N≒0.102kgf

LMH-UU-E <Built-in Synthetics Resin Retainer>

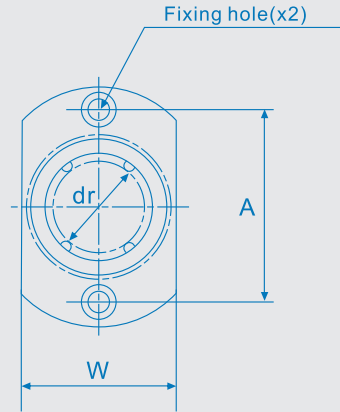
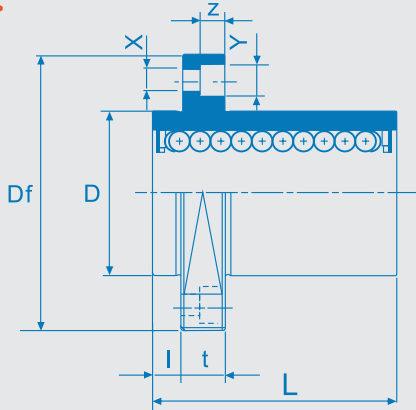
合成树脂保持器

LMH-E-A <Stainless Steel Retainer>

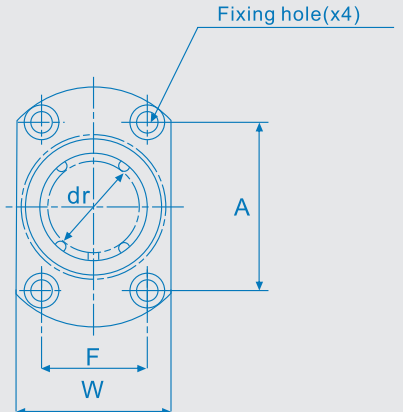
整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



LMH 13 or less



LMH 16 or more

Part No.																											
Nominal shaft diameter mm	Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Major dimensions and tolerance													Major dimensions and tolerance						Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
	LMH····UU-E	LMH····E-A	dr mm	Tolerance μ m	D		L	Tolerance μ m	Flange				Flange						dynamic C(N)	Static Co(N)							
					mm	Tolerance μ m			I mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm										
6	LMH6UU-E		6	0 -9	12	0	19	±300	5	28	18	5	20	—	3.5	6	3.1	12	12	206	265	21	6				
8	LMH8UU-E	LMH8-E-A	8		15	-13	24		5	32	21	5	24	—	3.5	6	3.1			274	392	33	8				
10	LMH10UU-E	LMH10-E-A	10		19	0	29		6	40	25	6	29	—	4.5	7.5	4.1			372	549	64	10				
12	LMH12UU-E	LMH12-E-A	12		21		0		30	6	42	27	6	32	—	4.5	7.5			4.1	510	784	68	12			
13	LMH13UU-E		13		23	-16	32		6	43	29	6	33	—	4.5	7.5	4.1			510	784	81	13				
16	LMH16UU-E	LMH16-E-A	16		28		37		6	48	34	6	31	22	4.5	7.5	4.1			774	1,180	112	16				
20	LMH20UU-E	LMH20-E-A	20	0 -10	32	0	42	±300	8	54	38	8	36	24	5.5	9	5.1	15	15	882	1,370	167	20				
25	LMH25UU-E	LMH25-E-A	25		40		59		8	62	46	8	40	32	5.5	9	5.1			980	1,570	325	25				
30	LMH30UU-E	LMH30-E-A	30		45	-19	64		10	74	51	10	49	35	6.6	11	6.1			1,570	2,740	388	30				

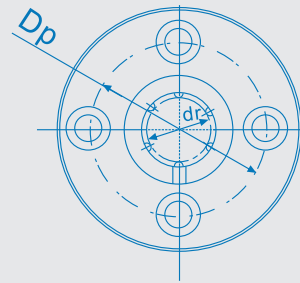
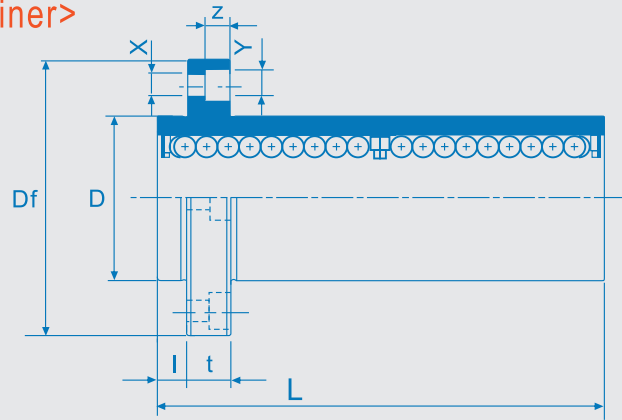
Note: All sizes of LMH-E type are sealed on both sides.

SI Unit 1N≒0.102kgf

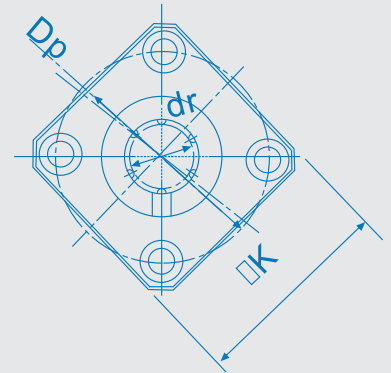
LMF/K-LUU-E <Built-in Synthetics Resin Retainer>
合成树脂保持器
LMF/K-L-E-A <Stainless Steel Retainer>
整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



LMF...LUU-E



LMK...LUU-E

Part No.																							
Nominal shaft diameter mm	Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Major dimensions and tolerance														Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm	
	LMF/K···LUU-E	LMF/K···L-E-A	dr mm	Tolerance μ m	D		L	Tolerance μ m	Flange			Flange							dynamic C(N)	Static Co(N)			
					mm	Tolerance μ m			I mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm							
6	LMF/K6LUU-E		6	0 -10	12	0	35	±300	5	28	22	5	20	3.5	6	3.1	15	15	323	530	31 25	6	
8	LMF/K8LUU-E	LMF/K8L-E-A	8		15	-13	45		5	32	25	5	24	3.5	6	3.1			431	784	51 43	8	
10	LMF/K10LUU-E	LMF/K10L-E-A	10		19	0 -16	55		6	40	30	6	29	4.5	7.5	4.1			588	1,100	98 78	10	
12	LMF/K12LUU-E	LMF/K12L-E-A	12		21		57		6	42	32	6	32	4.5	7.5	4.1			813	1,570	110 90	12	
13	LMF/K13LUU-E		13		23		61		6	43	34	6	33	4.5	7.5	4.1			813	1,570	130 108	13	
16	LMF/K16LUU-E	LMF/K16L-E-A	16		28		70		6	48	37	6	38	4.5	7.5	4.1			1,230	2,350	190 165	16	
20	LMF/K20LUU-E	LMF/K20L-E-A	20	0 -12	32	0 -19	80		8	54	42	8	43	5.5	9	5.1	20	20	1,400	2,740	260 225	20	
25	LMF/K25LUU-E	LMF/K25L-E-A	25		40		112		8	62	50	8	51	5.5	9	5.1			1,560	3,140	540 500	25	
30	LMF/K30LUU-E	LMF/K30L-E-A	30		45		123		10	74	58	10	60	6.6	11	6.1			2,490	5,490	680 590	30	
35	LMF/K35LUU-E	LMF/K35L-E-A	35		52		135		10	82	64	10	67	6.6	11	6.1			25	25	2,650	6,270	1,020 930
40	LMF/K40LUU-E	LMF/K40L-E-A	40	60	0 -22	151	13		96	75	13	78	9	14	8.1	3,430	8,040	1,570 1,380			40		
50	LMF/K50LUU-E		50	80		192	13		116	92	13	98	9	14	8.1	6,080	15,900	3,600 3,400			50		
60	LMF/K60LUU-E		60	0 -20		90	0 -25	209	18	134	106	18	112	11	17	11.1	30	30			7,550	20,000	4,500 4,060

Note: All sizes of LMF-E/LMK-E type are sealed on both sides.

SI Unit 1N≒0.102kgf

LMH-LUU-E <Built-in Synthetics Resin Retainer>

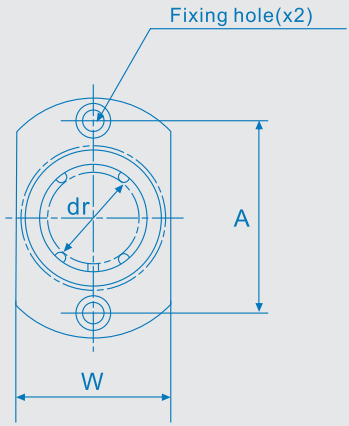
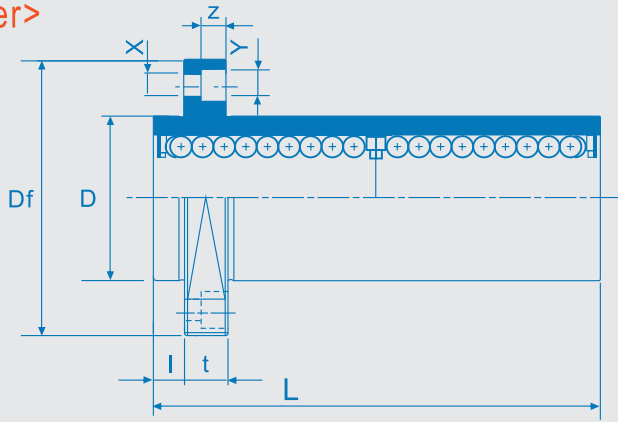
合成树脂保持器

LMH-L-E-A <Stainless Steel Retainer>

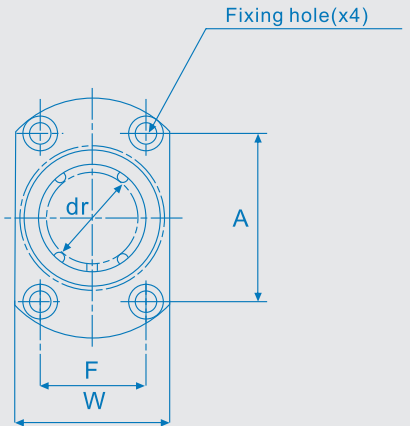
整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



LMH 13 or less



LMH 16 or more

Part No.																														
Nominal shaft diameter mm	Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Major dimensions and tolerance														Major dimensions and tolerance								Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
	LMH···LUU-E	LMH···L-E-A	dr mm	Tolerance μ m	D		L		Flange				Flange								dynamic C(N)	Static Co(N)								
					mm	Tolerance μ m	mm	Tolerance μ m	I mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm													
6	LMH6LUU-E		6	0 -10	12	0	35	±300	5	28	18	5	20	—	3.5	6	3.1	15	15	323	530	28	6							
8	LMH8LUU-E	LMH8L-E-A	8		15	-13	45		5	32	21	5	24	—	3.5	6	3.1			431	784	47	8							
10	LMH10LUU-E	LMH10L-E-A	10		19	0	55		±300	6	40	25	6	29	—	4.5	7.5			4.1	588	1,100	90	10						
12	LMH12LUU-E	LMH12L-E-A	12		21		0			57	6	42	27	6	32	—	4.5			7.5	4.1	813	1,570	102	12					
13	LMH13LUU-E		13		23	-16	61			±300	6	43	29	6	33	—	4.5			7.5	4.1	813	1,570	123	13					
16	LMH16LUU-E	LMH16L-E-A	16		28		70				6	48	34	6	31	22	4.5			7.5	4.1	1,230	2,350	182	16					
20	LMH20LUU-E	LMH20L-E-A	20	0 -12	32	0	80	±300			8	54	38	8	36	24	5.5	9	5.1	20	20	1,400	2,740	247	20					
25	LMH25LUU-E	LMH25L-E-A	25		40		0				112	8	62	46	8	40	32	5.5	9			5.1	1,560	3,140	525	25				
30	LMH30LUU-E	LMH30L-E-A	30		45	-19	123		10		74	51	10	49	35	6.6	11	6.1	2,490			5,490	645	30						

Note: All sizes of LMH-E type are sealed on both sides.

SI Unit 1N≒0.102kgf

LMFC/KC-UU <Built-in Synthetics Resin Retainer>

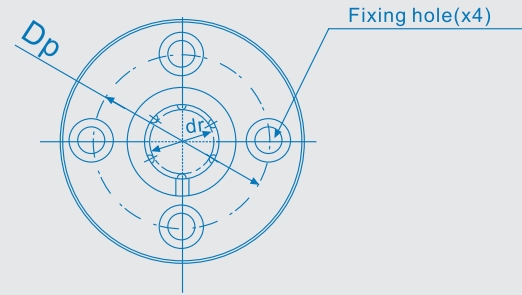
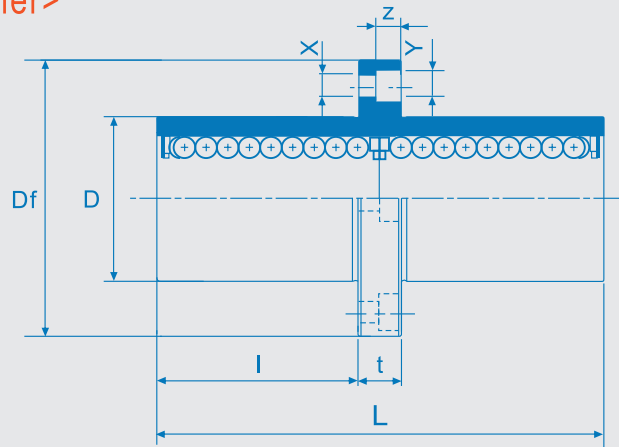
合成树脂保持器

LMFC/KC-A <Stainless Steel Retainer>

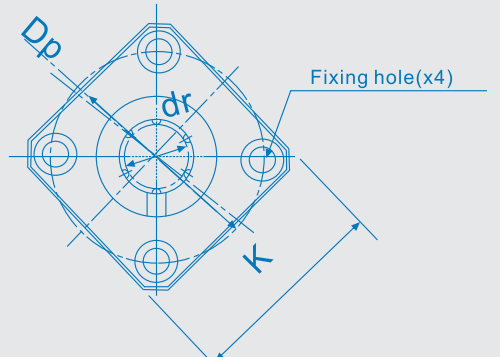
整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



LMFC



LMKC

Part No.																								
Nominal shaft diameter mm	Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Major dimensions and tolerance										Major dimensions and tolerance						Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
	LMFC/KC…UU	LMFC/KC…A	mm	dr	D		L		Flange			Flange						dynamic C(N)			Static Co(N)			
				μ m	mm	Tolerance μ m	mm	Tolerance μ m	I mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm								
6	LMFC/KC6UU		6	0 -10	12	0	35	±300	15	28	22	5	20	3.5	6	3.1	15	15	323	530	31 25	6		
8	LMFC/KC8UU	LMFC/KC8-A	8		15	-13	45		20	32	25	5	24	3.5	6	3.1			431	784	51 43	8		
10	LMFC/KC10UU	LMFC/KC10-A	10		19	0	55		24.5	40	30	6	29	4.5	7.5	4.1			588	1,100	98 78	10		
12	LMFC/KC12UU	LMFC/KC12-A	12		21		57		25.5	42	32	6	32	4.5	7.5	4.1			813	1,570	110 90	12		
13	LMFC/KC13UU		13		23		-16		61	27.5	43	34	6	33	4.5	7.5			4.1	813	1,570	130 108	13	
16	LMFC/KC16UU	LMFC/KC16-A	16		28		70		32	48	37	6	38	4.5	7.5	4.1			1,230	2,350	190 165	16		
20	LMFC/KC20UU	LMFC/KC20-A	20	0 -12	32	0	80		36	54	42	8	43	5.5	9	5.1	20	20	1,400	2,740	260 225	20		
25	LMFC/KC25UU	LMFC/KC25-A	25		40		112		52	62	50	8	51	5.5	9	5.1			1,560	3,140	540 500	25		
30	LMFC/KC30UU	LMFC/KC30-A	30		45	-19	123		56.5	74	58	10	60	6.6	11	6.1			2,490	5,490	680 590	30		
35	LMFC/KC35UU	LMFC/KC35-A	35	0 -15	52		0		135	62.5	82	64	10	67	6.6	11	6.1	25	25	2,650	6,270	1,020 930	35	
40	LMFC/KC40UU	LMFC/KC40-A	40		60	-22			151	69	96	75	13	78	9	14	8.1			3,430	8,040	1,570 1,380	40	
50	LMFC/KC50UU		50		80	192	89.5		116	92	13	98	9	14	8.1	6,080	15,900			3,600 3,400	50			
60	LMFC/KC60UU		60	0 -20	90	0 -25	209		95.5	134	106	18	112	11	17	11.1	30	30	7,550	20,000	4,500 4,060	60		

Seal type:
LMFC10 UU

SI Unit 1N≒0.102kgf

No entry	No seals
UU	Seals on both sides

LMHC-UU <Built-in Synthetics Resin Retainer>

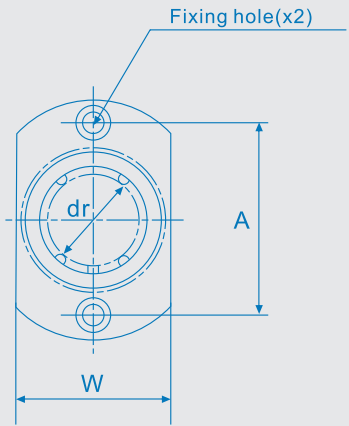
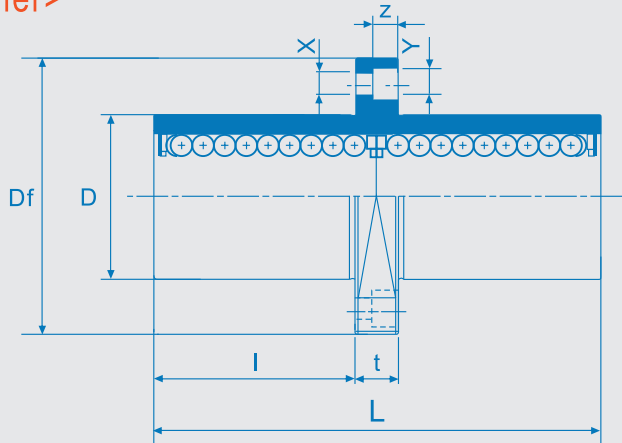
合成树脂保持器

LMHC-UU-A <Stainless Steel Retainer>

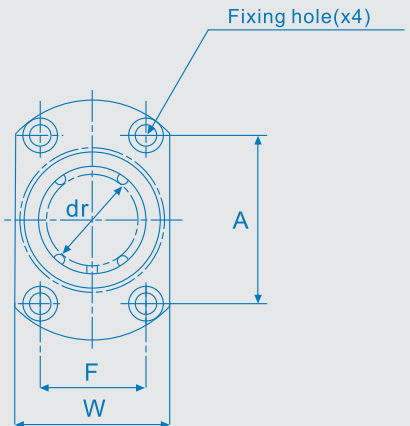
整体不锈钢保持器



This type is a metric dimension series widely used in Japan and other countries.



LMHC 13 or less



LMHC 16 or more

Part No.																											
Nominal shaft diameter mm	Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Major dimensions and tolerance														Eccentricity	Squareness	Basic load rating		Weight	Nominal shaft diameter mm					
	LMHC…UU	LMHC…A	dr	D		L		Flange								Flange							dynamic C(N)	Static Co(N)			
				mm	Tolerance μ m	mm	Tolerance μ m	I mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm											
																			mm	μ m					mm	μ m	mm
6	LMHC6UU		6	0 -10	12	0	35	±300	15	28	18	5	20	—	3.5	6	3.1	15	15	323	529	28	6				
8	LMHC8UU	LMHC8-A	8		15	-13	45		20	32	21	5	24	—	3.5	6	3.1			431	784	47	8				
10	LMHC10UU	LMHC10-A	10		19	0	55		24.5	40	25	6	29	—	4.5	7.5	4.1			588	1,100	90	10				
12	LMHC12UU	LMHC12-A	12		21		57		25.5	42	27	6	32	—	4.5	7.5	4.1			813	1,570	102	12				
13	LMHC13UU		13		23		-16		61	27.5	43	29	6	33	—	4.5	7.5			4.1	813	1,570	123	13			
16	LMHC16UU	LMHC16-A	16		28		70		32	48	34	6	31	22	4.5	7.5	4.1			1,230	2,350	182	16				
20	LMHC20UU	LMHC20-A	20	0 -12	32	0	80		36	54	38	8	36	24	5.5	9	5.1	20	20	1,400	2,740	247	20				
25	LMHC25UU	LMHC25-A	25		40		112		52	62	46	8	40	32	5.5	9	5.1			1,560	3,140	525	25				
30	LMHC30UU	LMHC30-A	30		45	-19	123		56.5	74	51	10	49	35	6.6	11	6.1			2,490	5,490	645	30				

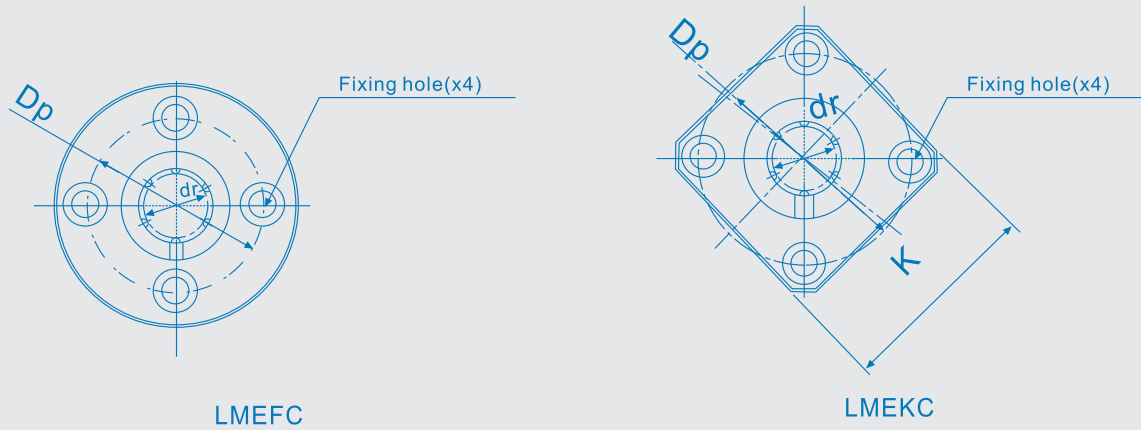
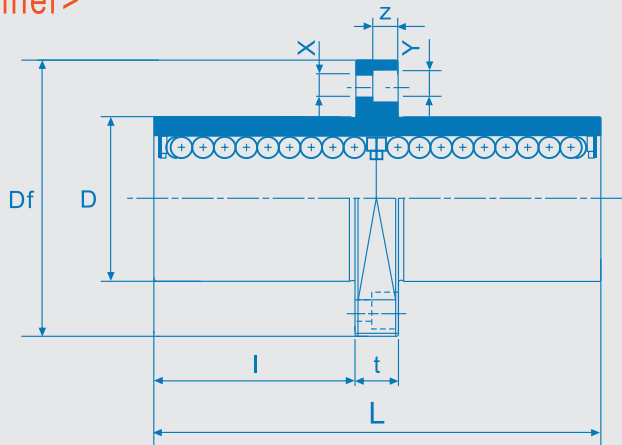
Note: All sizes of LMHC type are sealed on both sides.

SI Unit 1N≒0.102kgf

LMEFC/KC-UU <Built-in Synthetics Resin Retainer>
合成树脂保持器
LMEFC/KC-A <Stainless Steel Retainer>
整体不锈钢保持器



This type is a metric dimension series generally used in Europe.



Part No.																								
Nominal shaft diameter mm	Resin Retainer 合成树脂保持器	StainlessSteelRetainer 整体不锈钢保持器	Major dimensions and tolerance													Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm			
	LMEFC/KC…UU	LMEFC/KC…A	dr		D		L		Flange						Flange									
			mm	Tolerance μ m	mm	Tolerance μ m	mm	Tolerance μ m	l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm			Z mm						
																			dynamic C(N)			Static Co(N)		
8	LMEFC/KC8UU	LMEFC/KC8-A	8	+9	16	0 -13	45	±300	20.5	32	25	5	24	3.5	6	3.1	15	15	421	804	59 51	8		
12	LMEFC/KC12UU	LMEFC/KC12-A	12	-1	22	0	61		27.5	42	32	6	32	4.5	7.5	4.1			813	1,570	110 90	12		
16	LMEFC/KC16UU	LMEFC/KC16-A	16	+11	26	-16	70		31	46	35	6	36	4.5	7.5	4.1			921	1,780	160 135	16		
20	LMEFC/KC20UU	LMEFC/KC20-A	20	-1	32	0 -19	80		36	54	42	8	43	5.5	9	5.1	17	17	1,370	2,740	260 225	20		
25	LMEFC/KC25UU	LMEFC/KC25-A	25	+13	40		112		52	62	50	8	51	5.5	9	5.1			1,570	3,140	540 500	25		
30	LMEFC/KC30UU	LMEFC/KC30-A	30	-2	47		123		56.5	76	60	10	62	6.6	11	6.1			2,500	5,490	815 720	30		
40	LMEFC/KC40UU	LMEFC/KC40-A	40	+16 -4	62	0	151		69	98	75	13	80	9	14	8.1	20	20	3,430	8,040	1,805 1,600	40		
50	LMEFC/KC50UU		50		75	-22	192		89.5	112	88	13	94	9	14	8.1			6,080	15,900	2,820 2,620	50		
60	LMEFC/KC60UU		60		90	0 -25	209		95.5	134	106	18	112	11	17	11.1			25	25	7,550	20,000	4,920 4,480	60

Seal type:
LMEFC10 UU

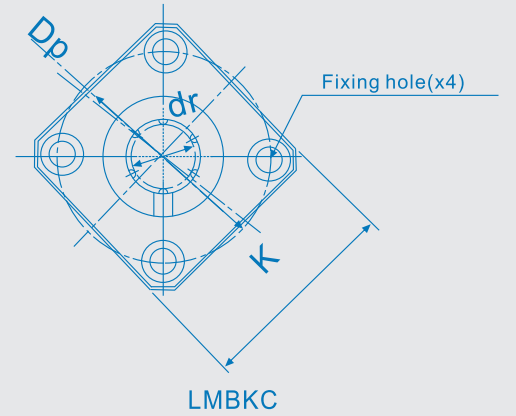
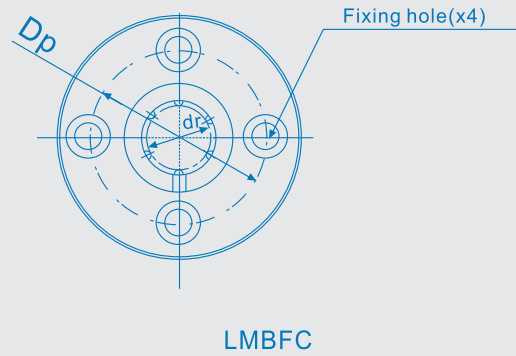
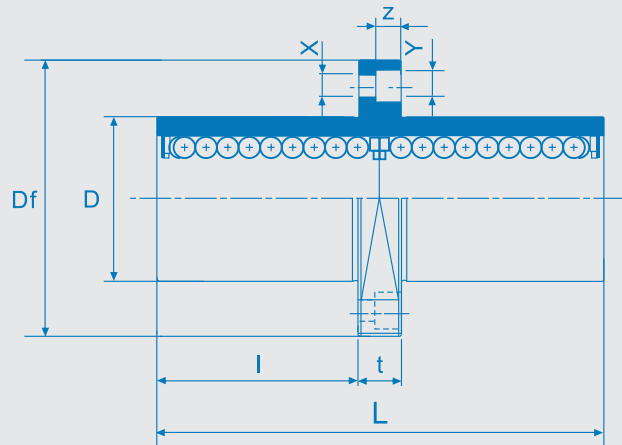
No entry	No seals
UU	Seals on both sides

SI Unit 1N≒0.102kgf

LMBFC/KC <Resin Retainer> 合成树脂保持器



This type is an inch dimension series mainly used in the US.



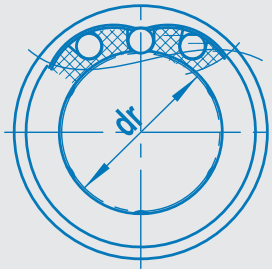
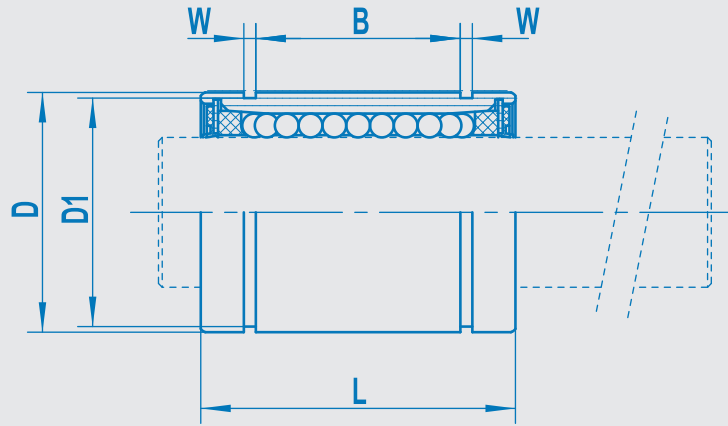
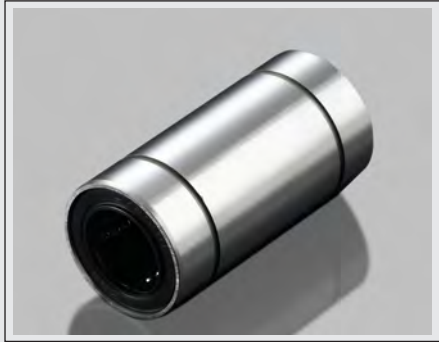
Nominal shaft diameter mm	Part No.		Major dimensions and tolerance										Major dimensions and tolerance							Eccentricity	Squareeness	Basic load rating		Weight	Nominal shaft diameter Inch/mm
	LMBFC	LMBKC	dr		D		L		Flange			Flange							dynamic C(N)			Static Co(N)			
			Inch/mm	Tolerance Inch/ μ m	Inch/mm	Tolerance Inch/ μ m	Inch/mm	Tolerance Inch/ μ m	ℓ Inch/mm	Df Inch/mm	K Inch/mm	t Inch/mm	Dp Inch/mm	X Inch/mm	Y Inch/mm	Z Inch/mm									
1/4 6.350	LMBFC4	LMBKC4	.2500 6.350	0 -13	.5000 12.700	0 -13	1.3750 34.925	±.012 ±300	.5781 14.684	1.2500 31.750	1.0000 25.400	.2188 5.556	.8750 22.225	.1563 3.969	.2500 6.350	.1406 3.572	15	.0006	323	530	40 33	1/4 6.350			
3/8 9.525	LMBFC6	LMBKC6	.3750 9.525	0 -10	.6250 15.875	0 -16	1.5938 40.481	±.012 ±300	.6719 17.066	1.5000 38.100	1.2500 31.750	.2500 6.350	1.0620 26.988	.1875 4.763	.2969 7.541	.1719 4.366	15	.0006	353	630	60 45	3/8 9.525			
1/2 12.700	LMBFC8	LMBKC8	.5000 12.700	0 -10	.8750 22.225	0 -16	2.3750 60.325	±.012 ±300	1.0625 26.988	1.7500 44.450	1.3750 34.925	.2500 6.350	1.312 33.338	.1875 4.763	.2969 7.541	.1719 4.366	15	.0006	813	1,570	126 106	1/2 12.700			
5/8 15.875	LMBFC10	LMBKC10	.6250 15.875	0 -12	1.1250 28.575	0 -19	2.8125 71.438	±.012 ±300	1.2813 32.544	2.0000 50.800	1.5000 38.100	.2500 6.350	1.5620 39.688	.1875 4.763	.2969 7.541	.1719 4.366	15	.0006	1,230	2,350	215 200	5/8 15.875			
3/4 19.050	LMBFC12	LMBKC12	.7500 19.050	0 -12	1.2500 31.750	0 -19	3.0937 78.581	±.012 ±300	1.3906 35.322	2.1875 55.563	1.6875 42.863	.3125 7.938	1.7180 43.656	.2188 5.556	.3438 8.731	.2031 5.159	20	.0008	1,370	2,740	280 240	3/4 19.050			
1 25.400	LMBFC16	LMBKC16	1.0000 25.400	0 -15	1.5625 39.688	0 -22	4.2813 108.744	±.012 ±300	1.9844 50.403	2.2500 63.500	2.0000 50.800	.3125 7.938	2.0310 51.594	.2188 5.556	.3438 8.731	.2031 5.159	20	.0008	1,570	3,140	515 470	1 25.400			
1-1/4 31.750	LMBFC20	LMBKC20	1.2500 31.750	0 -15	2.0000 50.800	0 -22	5.0000 127.000	±.012 ±300	2.3125 58.738	3.1250 79.375	2.5000 63.500	.3750 9.525	2.5625 65.088	.2813 7.144	.4063 10.319	.2656 6.747	25	.0010	2,500	5,490	1,020 935	1-1/4 31.750			
1-1/2 38.100	LMBFC24	LMBKC24	1.5000 38.100	0 -15	2.3750 60.325	0 -25	5.6875 144.463	±.012 ±300	2.5938 65.882	3.7500 95.250	3.0000 76.200	.5000 12.700	3.0625 77.788	.3437 8.731	.5000 12.700	.3281 8.334	25	.0010	3,430	8,040	1,630 1,460	1-1/2 38.100			
2 50.800	LMBFC32	LMBKC32	2.0000 50.800	0 -15	3.0000 76.200	0 -25	7.7500 196.850	±.012 ±300	3.6250 92.075	4.3750 111.125	3.5000 88.900	.5000 12.700	3.6875 93.662	.3437 8.731	.5000 12.700	.3281 8.334	30	.0012	6,080	15,900	2,800 2,620	2 50.800			

Seal type:
LMBFC10G UU

No entry	No seals
UU	Seals on both sides

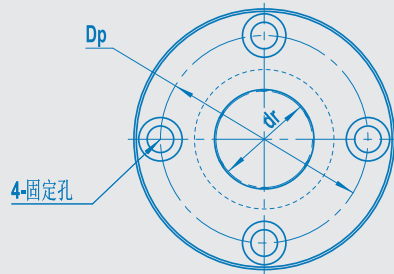
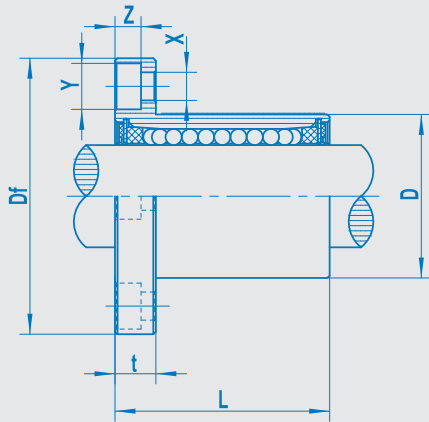
SI Unit 1N≒0.225lbs
1kg≒2.205lbs

LM-UU-UD <Built-in Synthetics Resin Retainer>
合成树脂保持器



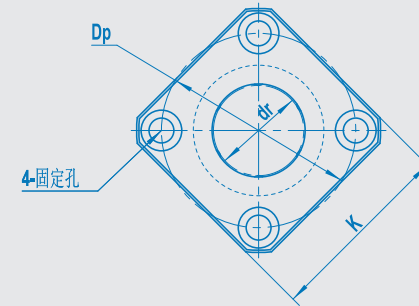
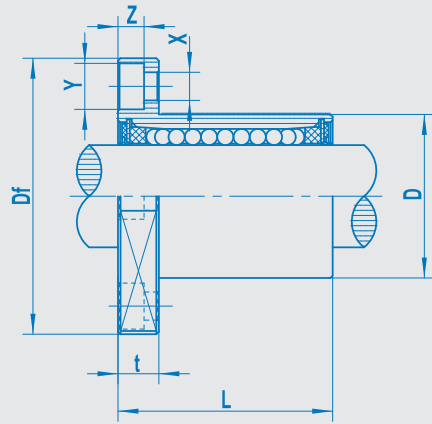
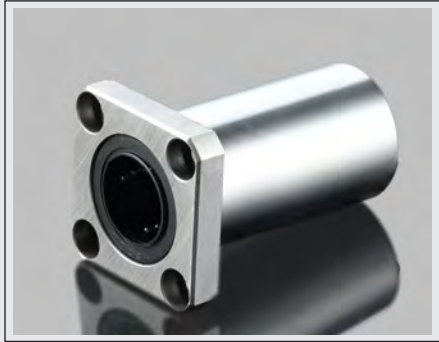
Nominal Part NO			Nominal Shaft Diameter (mm)		Major Dimensions and Tolerance (mm)					Eccentricity (max) μm	Basic Load Dynamic C(N)	Rating Static Co(N)
	Ball Circuit	Weight g	dr	Tolerance	D	L	B	W	D1			
LM6UU-UD LM8UU-UD LM10UU-UD	LM6-UD LM8-UD LM10-UD	4	12	6						15	225	305
		4	27	8						15	305	450
		4	49	10						15	505	715
LM12UU-UD LM13UU-UD LM16UU-UD	LM12-UD LM13-UD LM16-UD	4	54	12						15	630	810
		4	69	13						15	640	826
		5	112	16						15	1160	1445
LM20UU-UD LM25UU-UD LM30UU-UD	LM20-UD LM25-UD LM30-UD	5	152	20						20	1550	2065
		6	332	25						20	1720	3065
		6	433	30						20	2440	3974

LMF-UU-UD <Built-in Synthetics Resin Retainer>
合成树脂保持器



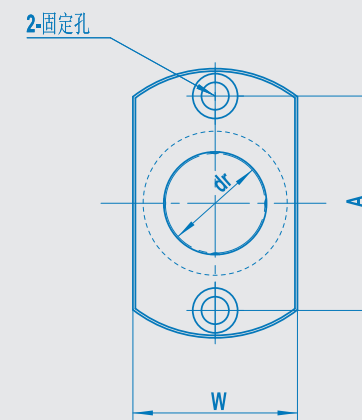
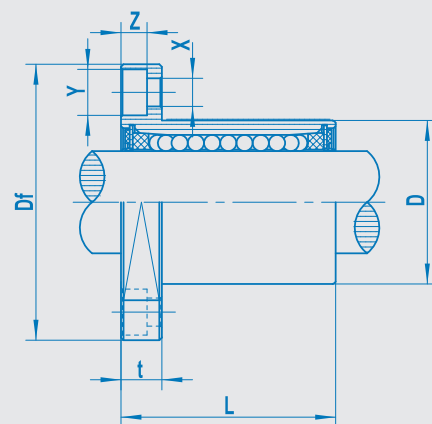
Nominal Part NO			Major Dimensions and Tolearance (mm)						Major Dimensions and Tolearance (mm)						Eccentricity μ m	Squareness μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance				Df	t	DP	X	Y	Z					
LMF6UU-UD LMF8UU-UD LMF10UU-UD	4 4 4	27 47 85	6 8 10	12 15 19	29 37 47				28 32 40	5 5 6	20 24 29	3.5 3.5 4.5	6 6 7.5	3.1 3.1 4.1	15 15 15	15 15 15	225 305 505	305 450 715	LMF6-UD LMF8-UD LMF10-UD
LMF12UU-UD LMF13UU-UD LMF16UU-UD	4 4 5	89 109 157	12 13 16	21 23 28	47 47 56				42 43 48	6 6 6	32 33 38	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	630 640 1160	810 826 1445	LMF12-UD LMF13-UD LMF16-UD
LMF20UU-UD LMF25UU-UD LMF30UU-UD	5 6 6	232 479 559	20 25 30	32 40 45	65 83 90				54 62 74	8 8 10	43 51 60	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1550 1720 2440	2065 3065 3974	LMF20-UD LMF25-UD LMF30-UD

LMK-UU-UD <Built-in Synthetics Resin Retainer> 合成树脂保持器

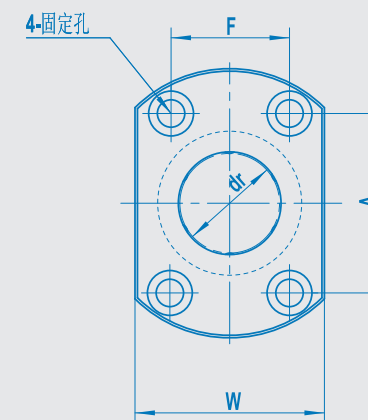


Nominal Part NO			Major Dimensions and Tolearance (mm)							Major Dimensions and Tolearance (mm)							Eccentricity μ m	Squareness μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance					Df	t	DP	K	X	Y	Z					
LMK6UU-UD LMK8UU-UD LMK10UU-UD	4 4 4	21 39 65	6 8 10	12 15 19	29 37 47					28 32 40	5 5 6	20 24 29	22 25 30	3.5 3.5 4.5	6 6 7.5	3.1 3.1 4.1	15 15 15	15 15 15	225 305 505	305 450 715	LMK6-UD LMK8-UD LMK10-UD
LMK12UU-UD LMK13UU-UD LMK16UU-UD	4 4 5	69 87 132	12 13 16	21 23 28	47 47 56					42 43 48	6 6 6	32 33 38	32 34 37	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	630 640 1160	810 826 1445	LMK12-UD LMK13-UD LMK16-UD
LMK20UU-UD LMK25UU-UD LMK30UU-UD	5 6 6	197 440 481	20 25 30	32 40 45	65 83 90					54 62 74	8 8 10	43 51 60	42 50 58	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1550 1720 2440	2065 3065 3974	LMK20-UD LMK25-UD LMK30-UD

LMH-UU-UD <Built-in Synthetics Resin Retainer> 合成树脂保持器



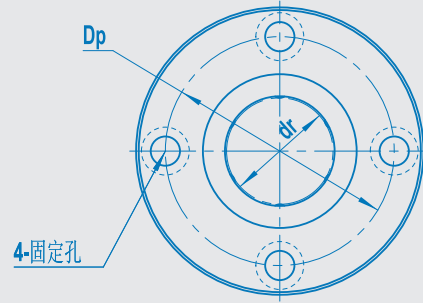
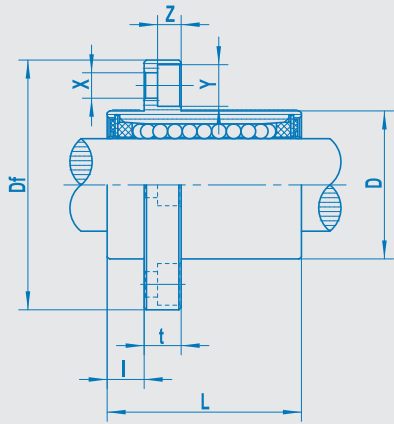
LMH13-UD及以下



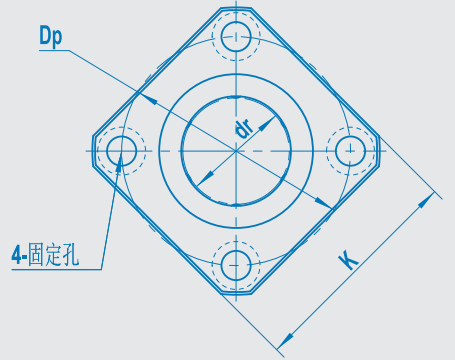
LMH16-UD及以上

Nominal Part NO			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μm	Squareness μm	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance				Df	t	F	W	A	X	Y	Z					
LMH6UU-UD LMH8UU-UD LMH10UU-UD	4 4 4	21 39 65	6 8 10	$\begin{matrix} 12 \\ 15 \\ 19 \end{matrix}$ $\begin{matrix} 0 \\ -0.013 \end{matrix}$	29 37 47				28 32 40	5 5 6	- - -	18 21 25	20 24 29	3.5 3.5 4.5	6 6 7.5	3.1 3.1 4.1	15 15 15	15 15 15	225 305 505	305 450 715	LMH6-UD LMH8-UD LMH10-UD
LMH12UU-UD LMH13UU-UD LMH16UU-UD	4 4 5	69 87 132	12 13 16	$\begin{matrix} 21 \\ 23 \\ 28 \end{matrix}$ $\begin{matrix} 0 \\ -0.016 \end{matrix}$	47 47 56	± 0.3			42 43 48	6 6 6	- - 22	27 29 34	32 33 31	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	630 640 1160	810 826 1445	LMH12-UD LMH13-UD LMH16-UD
LMH20UU-UD LMH25UU-UD LMH30UU-UD	5 6 6	197 440 481	20 25 30	$\begin{matrix} 32 \\ 40 \\ 45 \end{matrix}$ $\begin{matrix} 0 \\ -0.012 \end{matrix}$	65 83 90				54 62 74	8 8 10	24 32 35	38 46 51	36 40 49	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1550 1720 2440	2065 3065 3974	LMH20-UD LMH25-UD LMH30-UD

LMF/K-UU-E-UD <Built-in Synthetics Resin Retainer>
合成树脂保持器



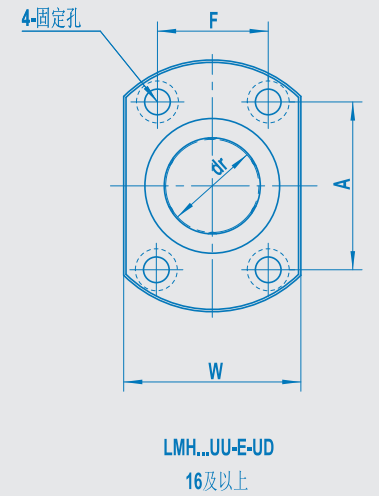
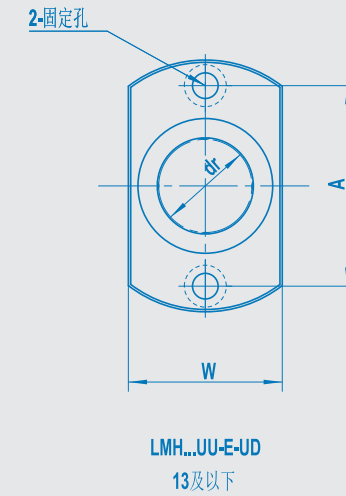
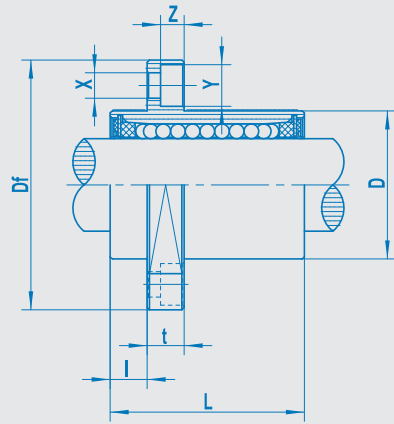
LMF...UU-E-UD



LMK...UU-E-UD

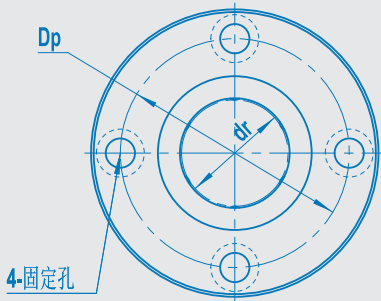
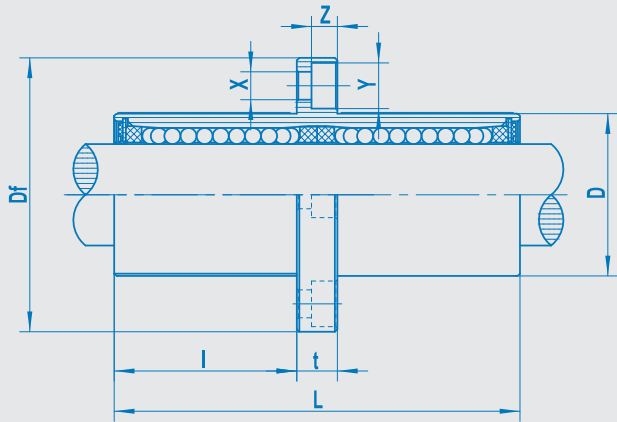
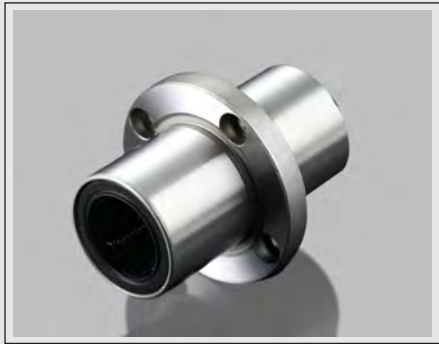
Major Dimensions and Tolerance											Major Dimensions and Tolerance				Eccentricity	Squareness	Basic load rating		Weight	Nominal shaft diameter mm		
	dr		D		L		Flange				Flange						μ m	μ m			dynamic C(N)	Static Co(N)
	mm	Tolerance μ m	mm	Tolerance μ m	mm	Tolerance μ m	l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm								
LMF/K6UU-E-UD	6	0 -10	12	0	29	± 300	5	28	22	5	20	3.5	6	3.1	15	15	225	305	27 21	6		
LMF/K8UU-E-UD	8		15	-18	37		5	32	25	5	24	3.5	6	3.1			305	450	47 39	8		
LMF/K10UU-E-UD	10		19	0	47		6	40	30	6	29	4.5	7.5	4.1			505	715	85 65	10		
LMF/K12UU-E-UD	12		21		47		6	42	32	6	32	4.5	7.5	4.1			630	810	89 69	12		
LMF/K13UU-E-UD	13		23	-21	47		6	43	34	6	33	4.5	7.5	4.1			640	826	109 87	13		
LMF/K16UU-E-UD	16		28		56		6	48	37	6	38	4.5	7.5	4.1			1160	1445	157 132	16		
LMF/K20UU-E-UD	20	0 -12	32	0 -25	65		8	54	42	8	43	5.5	9	5.1	20	20	1550	2065	232 197	20		
LMF/K25UU-E-UD	25		40		83		8	62	50	8	51	5.5	9	5.1			1720	3065	481 442	25		
LMF/K30UU-E-UD	30		45		90		10	74	58	10	60	6.6	11	6.1			2435	3970	560 482	30		

LMH-UU-E-UD <Built-in Synthetics Resin Retainer> 合成树脂保持器

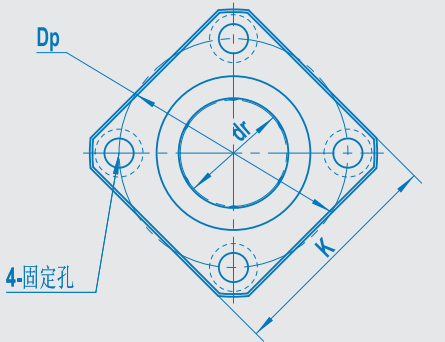


Major Dimensions and Tolerance											Major Dimensions and Tolerance					Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
	dr mm	Tolerance μ m	D mm	Tolerance μ m	L mm	Tolerance μ m	I mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			dynamic C(N)	Static Co(N)		
LMH6UU-E-UD	6	0 -10	12	0	29	300 -300	5	28	18	5	20	-	3.5	6	3.1	15	15	225	305	24	6
LMH8UU-E-UD	8		15	-18	37		5	32	21	5	24	-	3.5	6	3.1			305	450	43	8
LMH10UU-E-UD	10		19	0	47		6	40	25	6	29	-	4.5	7.5	4.1			505	715	77	10
LMH12UU-E-UD	12		21		47		6	42	27	6	32	-	4.5	7.5	4.1			630	810	81	12
LMH13UU-E-UD	13		23	-21	47		6	43	29	6	33	-	4.5	7.5	4.1			640	826	102	13
LMH16UU-E-UD	16		28		56		6	48	34	6	31	22	4.5	7.5	4.1			1160	1445	149	16
LMH20UU-E-UD	20	0 -12	32	0 -25	65		8	54	38	8	36	24	5.5	9	5.1	20	20	1550	2065	219	20
LMH25UU-E-UD	25		40		83		8	62	46	8	40	32	5.5	9	5.1			1720	3065	452	25
LMH30UU-E-UD	30		45		90		10	74	51	10	49	35	6.6	11	6.1			2435	3970	494	30

LMFC/KC-UU-UD <Built-in Synthetics Resin Retainer>
合成树脂保持器



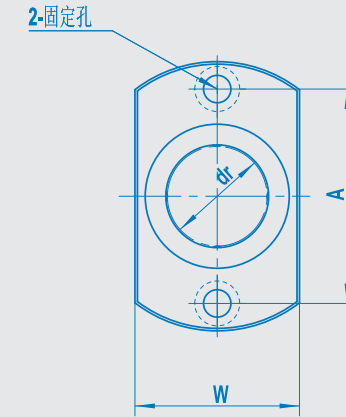
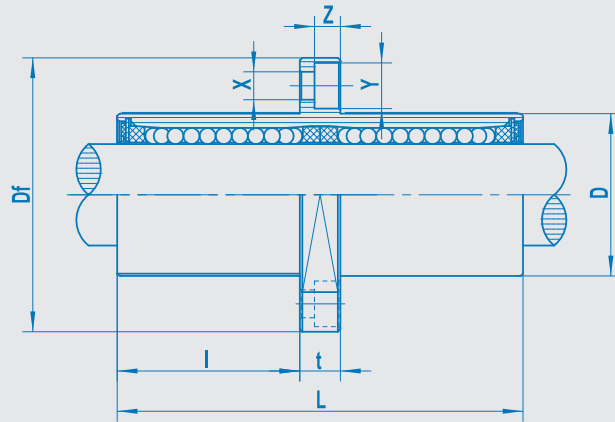
LMFC...UU-UD



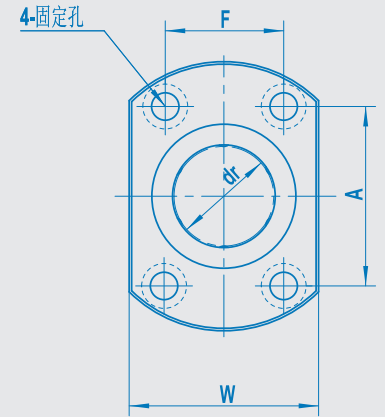
LMKC...UU-UD

Major Dimensions and Tolerance										Major Dimensions and Tolerance						Eccentricity	Squareness	Basic load rating		Weight	Nominal shaft diameter		
	dr		D		L	Flange				Flange				Dp	X			Y	Z			dynamic C(N)	Static Co(N)
	mm	Tolerance μ m	mm	Tolerance μ m		mm	Tolerance μ m	l mm	Df mm	K mm	t mm	X mm	Y mm										
LMFC/KC6UU-UD	6	0 -10	12	0	29	300 -300	12	28	22	5	20	3.5	6	3.1	15	15	225	305	27 21	6			
LMFC/KC8UU-UD	8		15	-18	37		16	32	25	5	24	3.5	6	3.1			305	450	47 39	8			
LMFC/KC10UU-UD	10		19	0	47		20.5	40	30	6	29	4.5	7.5	4.1			505	715	85 65	10			
LMFC/KC12UU-UD	12		21		47		20.5	42	32	6	32	4.5	7.5	4.1			630	810	89 69	12			
LMFC/KC13UU-UD	13		23	-21	47		20.5	43	34	6	33	4.5	7.5	4.1			640	826	109 87	13			
LMFC/KC16UU-UD	16		28		56		25	48	37	6	38	4.5	7.5	4.1			1160	1445	157 132	16			
LMFC/KC20UU-UD	20	0 -12	32	0 -25	65		28.5	54	42	8	43	5.5	9	5.1	20	20	1550	2065	232 197	20			
LMFC/KC25UU-UD	25		40		83		37.5	62	50	8	51	5.5	9	5.1			1720	3065	481 442	25			
LMFC/KC30UU-UD	30		45		90		40	74	58	10	60	6.6	11	6.1			2435	3970	560 482	30			

LMHC-UU-UD <Built-in Synthetics Resin Retainer> 合成树脂保持器



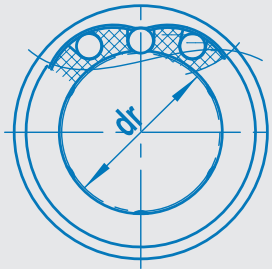
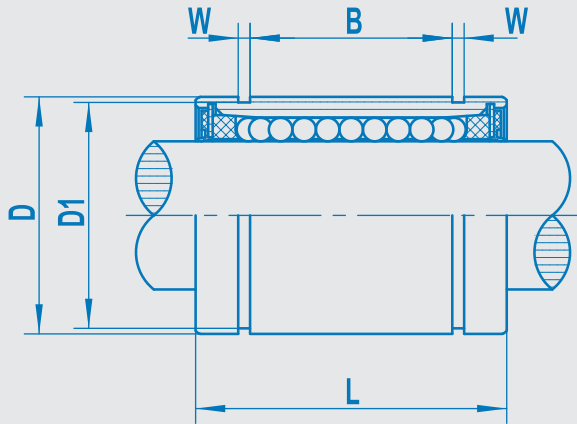
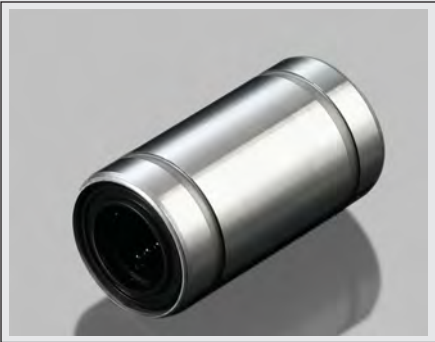
LMHC 13及以下



LMHC 16及以上

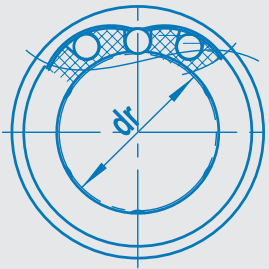
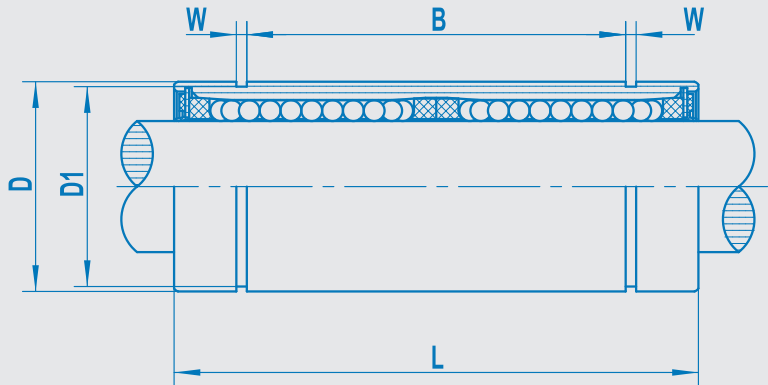
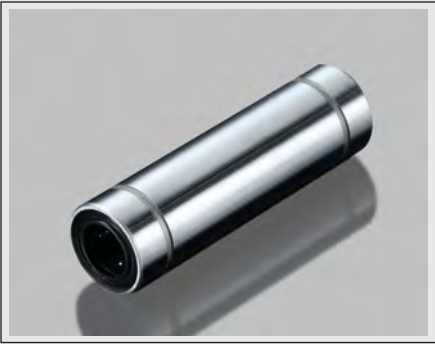
Major Dimensions and Tolerance											Major Dimensions and Tolerance					Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
	dr mm	Tolerance μ m	D mm	Tolerance μ m	L mm	Tolerance μ m	Flange				Flange							dynamic C(N)	Static Co(N)		
							I mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm						
LMHC6UU-UD	6	0 -10	12	0	29	300 -300	12	28	18	5	20	-	3.5	6	3.1	15	15	225	305	24	6
LMHC8UU-UD	8		15	-18	37		16	32	21	5	24	-	3.5	6	3.1			305	450	43	8
LMHC10UU-UD	10		19	0	47		20.5	40	25	6	29	-	4.5	7.5	4.1			505	715	77	10
LMHC12UU-UD	12		21		47		20.5	42	27	6	32	-	4.5	7.5	4.1			630	810	81	12
LMHC13UU-UD	13		23		47		20.5	43	29	6	33	-	4.5	7.5	4.1			640	826	102	13
LMHC16UU-UD	16		28	56	25		48	34	6	31	22	4.5	7.5	4.1	1160			1445	149	16	
LMHC20UU-UD	20	0 -12	32	0 -25	65		28.5	54	38	8	36	24	5.5	9	5.1	20	20	1550	2065	219	20
LMHC25UU-UD	25		40		83		37.5	62	46	8	40	32	5.5	9	5.1			1720	3065	452	25
LMHC30UU-UD	30		45		90		40	74	51	10	49	35	6.6	11	6.1			2435	3970	494	30

LM-UU-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



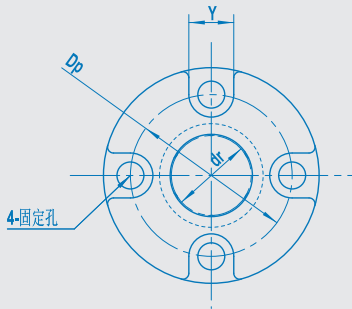
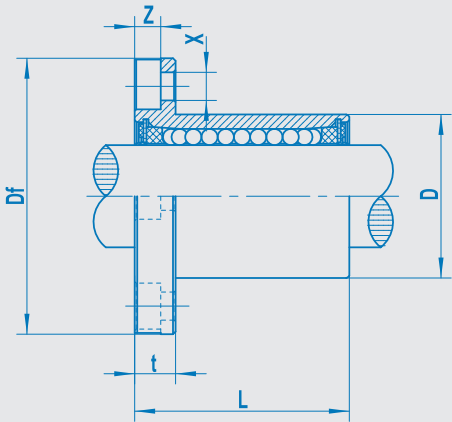
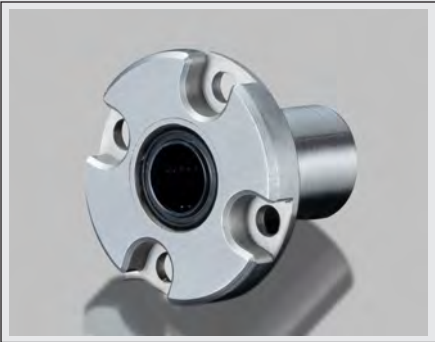
			Nominal Shaft Diameter (mm)		Major Dimensions and Tolerance (mm)						Eccentricity	Basic Load Rating			
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	Tolerance	D	Tolerance	L	Tolerance	B	Tolerance	W	D1	μ m	C(N)	Co(n)
LM6UU-TH LM8UU-TH LM10UU-TH	6	6	6		10	0 -0.009	19		11.3		1.15	9.6	12	130	150
	6	12	8		13	0	24		15.3		1.15	12.4	12	230	275
	6	26	10	0 -0.009	17	0 -0.011	29	0 -0.2	19.4	0 -0.4	1.15	16.2	12	365	430
LM12UU-TH LM16UU-TH	6	32	12		19	0	30		20.4		1.35	18	12	380	445
	5	58	16		26	0 -0.013	37		23.4		1.35	24.9	12	605	715

LM-LUU-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



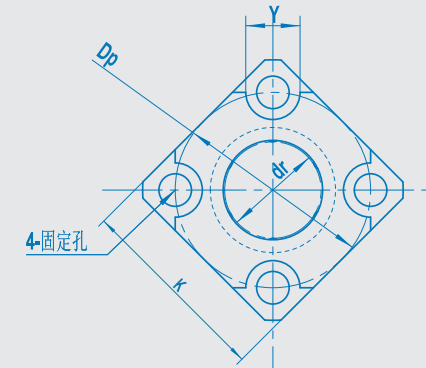
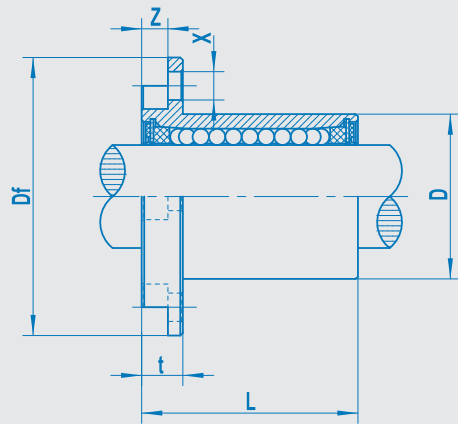
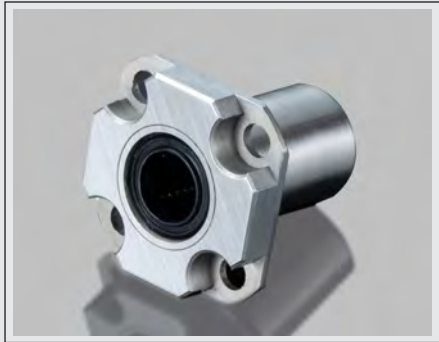
			Nominal Shaft Diameter (mm)		Major Dimensions and Tolerance (mm)						Eccentricity	Basic Load Rating			
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	Tolerance	D	Tolerance	L	Tolerance	B	Tolerance	W	D1	μ m	C(N)	Co(n)
LM6LUU-TH LM8LUU-TH LM10LUU-TH	6	12	6		10	0 -0.009	35		24.8		1.15	9.6	15	205	305
	6	25	8		13	0	45		32.8		1.15	12.4	15	380	550
	6	52	10	0 -0.010	17	0 -0.011	55	0 -0.3	41.4	0 -0.5	1.15	16.2	15	580	865
LM12LUU-TH LM16LUU-TH	6	65	12		19	0	57		43.4		1.35	18	15	605	895
	5	116	16		26	-0.013	70		49.8		1.35	24.9	15	960	1430

LMF-UU-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



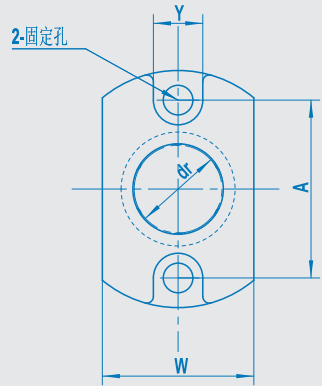
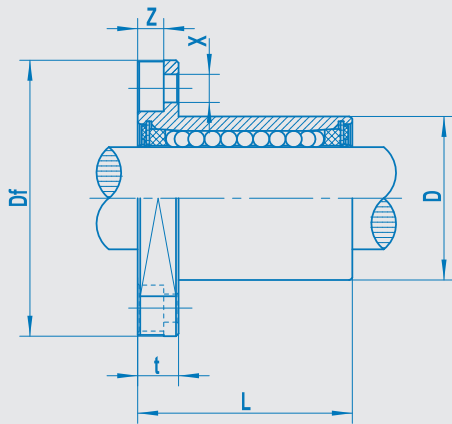
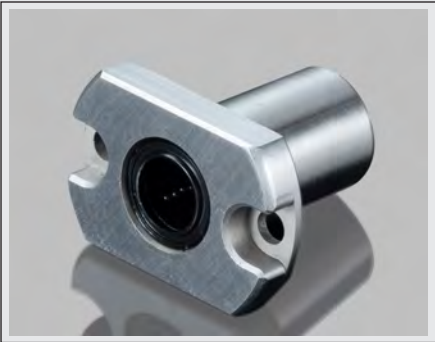
Nominal Part No			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange													
						Df	t	DP	X	Y	Z								
LMF6UU-TH LMF8UU-TH LMF10UU-TH	6	17	6	10	19	25	5	19	3.5	6	3.1	12	12	130 234 365	154 275 430	LMF6-TH LMF8-TH LMF10-TH			
	6	25	8	13	24	28	5	22	3.5	6	3.1								
	6	50	10	17	29	35	6	27	4.5	7.5	3.85								
LMF12UU-TH LMF16UU-TH	6	65	12	19	30	38	6	30	4.5	7.5	3.85	12	12	380 605	445 715	LMF12-TH LMF16-TH			
	5	95	16	26	37	44	6	36	4.5	7.5	3.85								

LMK-UU-TH <Built-in Synthetics Resin Retainer> 合成树脂保持器

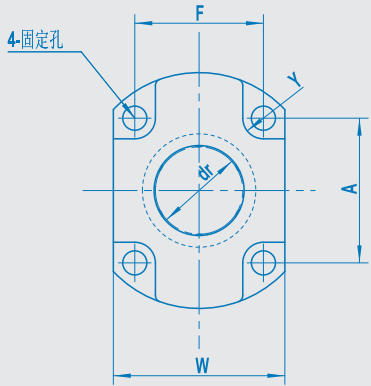


Nominal Part No			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)							Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	D	L	Flange														
			Tolerance	Tolerance	Tolerance	Df	K	t	DP	X	Y	Z								
LMK6UU-TH LMK8UU-TH LMK10UU-TH	6	15	6	10	19		25	20	5	19	3.5	6	3.1	12	12	130 234 365	154 275 430	LMK6-TH LMK8-TH LMK10-TH		
	6	20	8	13	24		28	23	5	22	3.5	6	3.1							
	6	40	10	17	29		35	27	6	27	4.5	7.5	3.85							
LMK12UU-TH LMK16UU-TH	6	51	12	19	30		38	29	6	30	4.5	7.5	3.85	12	12	380 605	445 715	LMK12-TH LMK16-TH		
	5	75	16	26	37		44	34	6	36	4.5	7.5	3.85							

LMH-UU-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



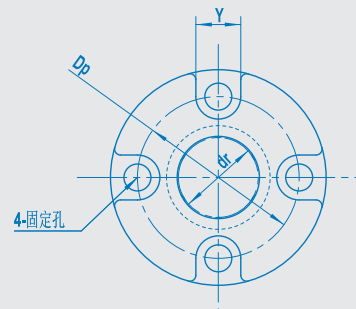
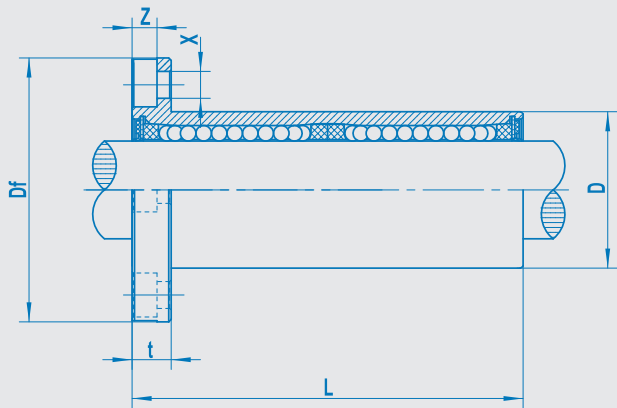
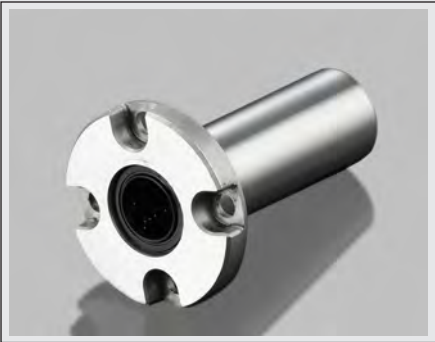
LMH...UU-TH
12及以下



LMH...UU-TH
16及以上

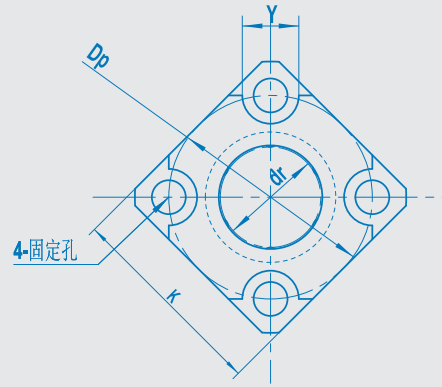
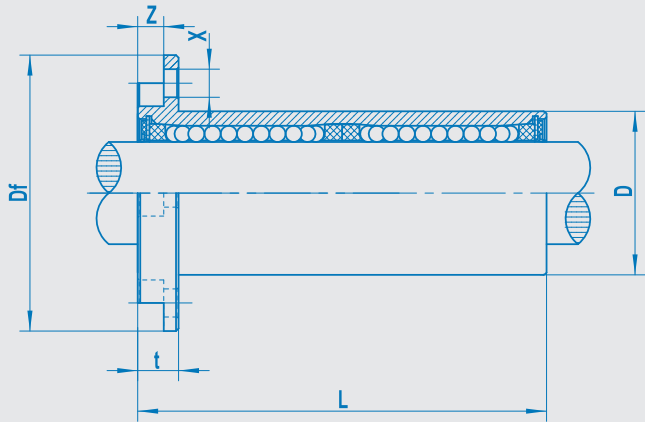
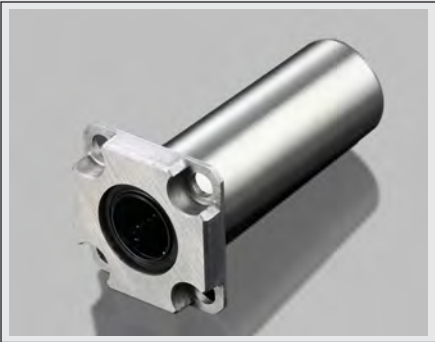
Nominal Part No			Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange														
						Df	t	W	A	F	X	Y	Z							
LMH6UU-TH LMH8UU-TH LMH10UU-TH	6	14	6	10	19	25		16	19		3.5	6	3.1	12	12	130 234 365	154 275 430	LMH6-TH LMH8-TH LMH10-TH		
	6	25	8	13	24	28	5	19	22	-	3.5	6	3.1							
	6	45	10	17	29	35	6	23	27	-	4.5	7.5	3.85							
LMH12UU-TH LMH16UU-TH	6	54	12	19	30	38	6	25	30	-	4.5	7.5	3.85	12	12	380 605	445 715	LMH12-TH LMH16-TH		
	5	82	16	26	37	44	6	32	27	24	4.5	7.5	3.85	12	12					

LMF-LUU-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



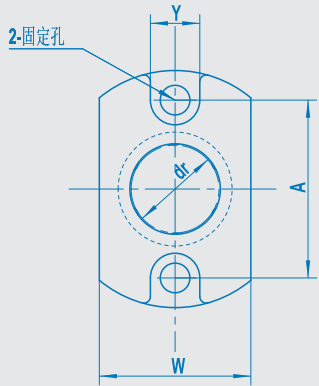
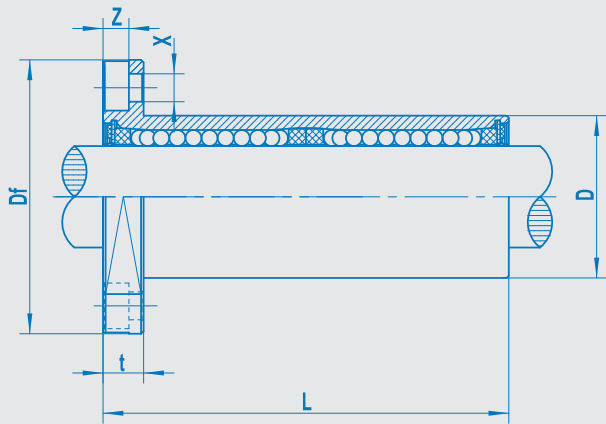
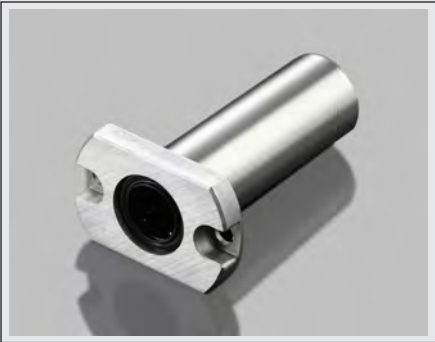
Nominal Part No			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	D	L	Flange													
						Tolerance	Tolerance	Tolerance	Df	t	DP	X	Y	Z					
LMF6LUU-TH LMF8LUU-TH LMF10LUU-TH	6	25	6	10	35	25	5	19	3.5	6	3.1	15 15	15 15	205 380 586	305 556 865	LMF6L-TH LMF8L-TH LMF10L-TH			
	6	35	8	13	45	28	5	22	3.5	6	3.1								
	6	80	10	17	55	35	6	27	4.5	7.5	3.85								
LMF12LUU-TH LMF16LUU-TH	6	98	12	19	57	38	6	30	4.5	7.5	3.85	15 15	15 15	605 966	900 1430	LMF12L-TH LMF16L-TH			
	5	155	16	26	70	44	6	36	4.5	7.5	3.85								

LMK-LUU-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器

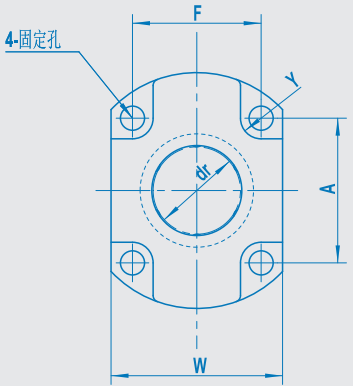


Nominal Part No			Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)							Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	D	L	Flange													
			Tolerance	Tolerance	Tolerance	Df	K	t	DP	X	Y	Z							
LMK6LUU-TH LMK8LUU-TH LMK10LUU-TH	6	21	6	10	35	0 -0.011	25	20	5	19	3.5	6	3.1	15 15	15 15	205 380 586	305 556 865	LMK6L LMK8L LMK10L	
	6	35	8	13	45	0 -0.013	28	23	5	22	3.5	6	3.1						
	6	65	10	17	55	0 -0.010	35	27	6	27	4.5	7.5	3.85						±0.3
LMK12LUU-TH LMK16LUU-TH	6	85	12	19	57	0 -0.016	38	29	6	30	4.5	7.5	3.85	15	15	605	900	LMK12L LMK16L	
	5	136	16	26	70		44	34	6	36	4.5	7.5	3.85	15	15	966	1430		

LMH-LUU-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



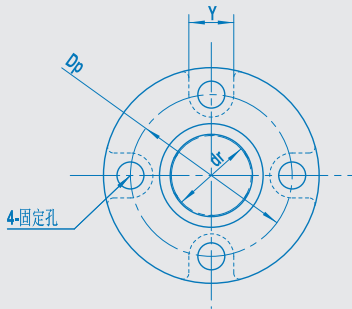
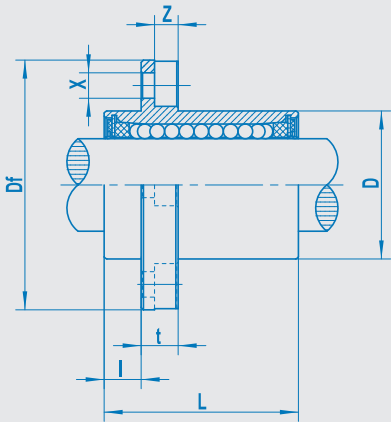
LMH...UU-TH
12及以下



LMH...UU-TH
16及以上

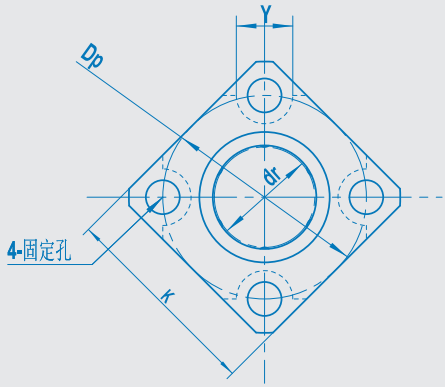
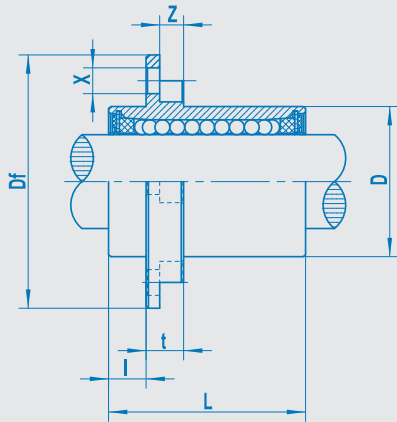
Nominal Part No			Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange														
						Df	t	W	A	F	X	Y	Z							
LMH6LUU-TH LMH8LUU-TH LMH10LUU-TH	6	20	6	10	35	25	5	16	19		3.5	6	3.1	15 15	15 15	205 380 586	305 556 865	LMH6L LMH8L LMH10L		
	6	36	8	13	45	28	5	19	22	-	3.5	6	3.1							
	6	75	10	17	55	35	6	23	27	-	4.5	7.5	4.1							
LMH12LUU-TH LMH16LUU-TH	6	85	12	19	57	38	6	25	30	-	4.5	7.5	4.1	15 15	15 15	605 966	900 1430	LMH12L LMH16L		
	5	140	16	26	70	44	6	32	27	24	4.5	7.5	4.1							

LMF-UUE-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



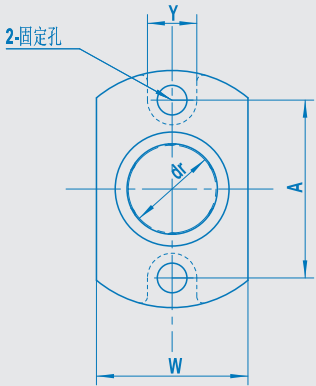
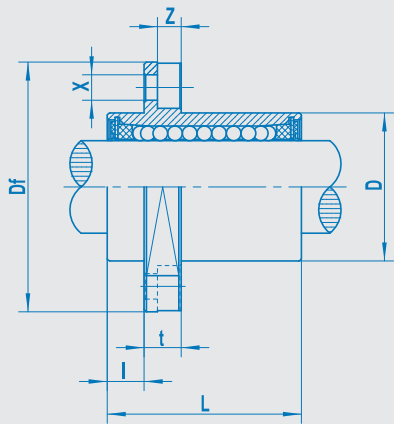
Nominal Part No			Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)							Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange													
						I	DF	t	DP	X	Y	Z							
LMF6UUE-TH LMF8UUE-TH LMF10UUE-TH	6	17	6	10	19	5	25	5	19	3.5	6	3.1	12	12	130	154	LMF6E-TH LMF8E-TH LMF10E-TH		
	6	25	8	13	24	5	28	5	22	3.5	6	3.1	12	12	234	275			
	6	50	10	17	29	6	35	6	27	4.5	7.5	4.1	12	12	365	430			
LMF12UUE-TH LMF16UUE-TH	6	65	12	19	30	6	38	6	30	4.5	7.5	4.1	12	12	380	445	LMF12E-TH LMF16E-TH		
	5	95	16	26	37	6	44	6	36	4.5	7.5	4.1	12	12	605	715			

LMK-UUE-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器

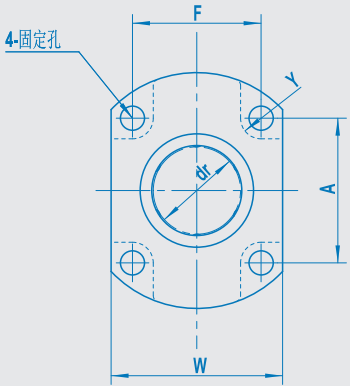


Nominal Part No			Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.			
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	D	L	Flange																	
						Tolerance	Tolerance	Tolerance	I	DF	t	DP	K	X	Y						Z		
LMK6UUE-TH LMK8UUE-TH LMK10UUE-TH	6	15	6	10	19		5	25	5	19	20	3.5	6	3.1	12	12	130	154	LMK6E-TH LMK8E-TH LMK10E-TH				
	6	20	8	13	24		5	28	5	22	23	3.5	6	3.1						12	12	234	275
	6	40	10	17	29	±0.3	6	35	6	27	27	4.5	7.5	4.1						12	12	365	430
LMK12UUE-TH LMK16UUE-TH	6	51	12	19	30		6	38	6	30	29	4.5	7.5	4.1	12	12	380	445	LMK12E-TH LMK16E-TH				
	5	75	16	26	37		6	44	6	36	34	4.5	7.5	4.1						12	12	605	715

LMH-UUE-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



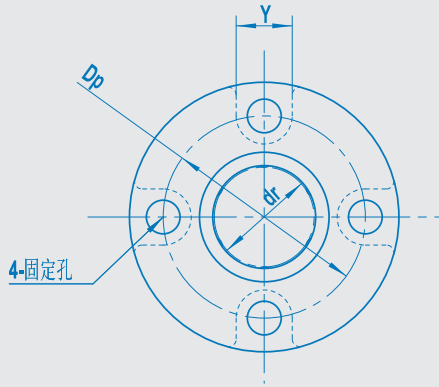
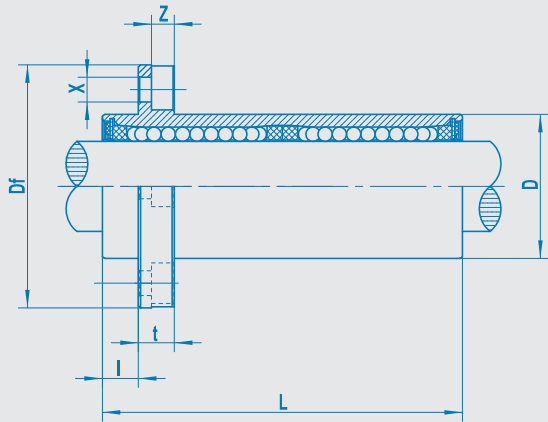
LMH...UU-TH
12及以下



LMH...UU-TH
16及以上

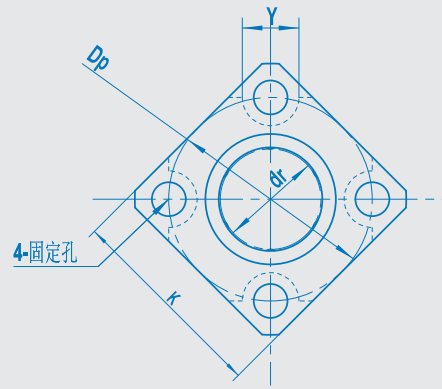
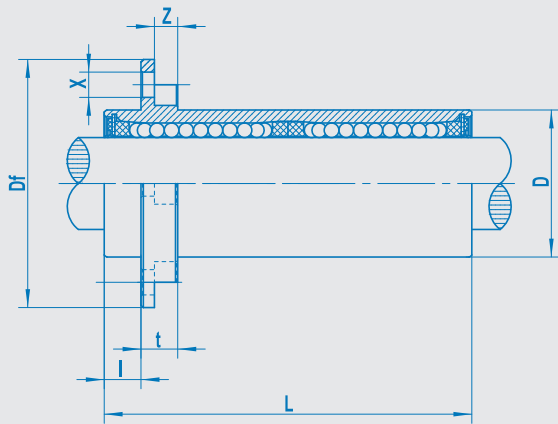
Nominal Part No			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)										Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange																	
						I	DF	t	A	W	F	X	Y	Z									
LMH6UUE-TH LMH8UUE-TH LMH10UUE-TH	6	14	6	10	19	5	25	5	19	16		3.5	6	3.1	12	12	130 234 365	154 275 430	LMH6E-TH LMH8E-TH LMH10E-TH				
	6	25	8	13	24	5	28	5	22	19	-	3.5	6	3.1									
	6	45	10	17	29	6	35	6	27	23	-	4.5	7.5	4.1									
LMH12UUE-TH LMH16UUE-TH	6	54	12	19	30	6	38	6	30	25	-	4.5	7.5	4.1	12	12	380 605	445 715	LMH12E-TH LMH16E-TH				
	5	82	16	26	37	6	44	6	36	32	24	4.5	7.5	4.1									

LMF-LUUE-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



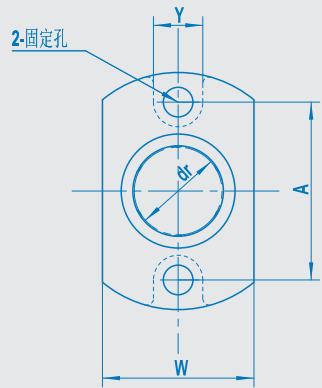
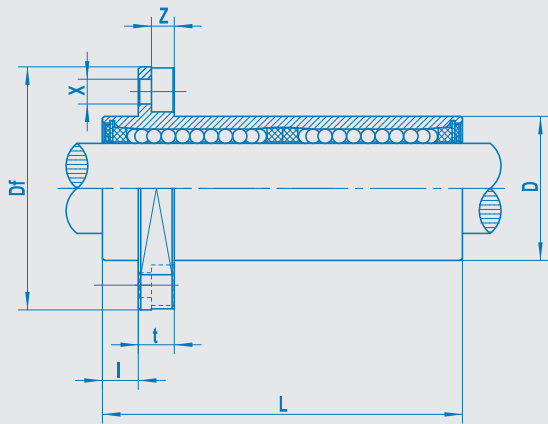
Nominal Part No			Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)							Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange													
						I	DF	t	DP	X	Y	Z							
LMF6LUUE-TH	6	25	6	10	35	5	25	5	19	3.5	6	3.1	12	12	205	305	LMF6LE-TH		
LMF8LUUE-TH	6	35	8	13	45	5	28	5	22	3.5	6	3.1	12	12	380	556	LMF8LE-TH		
LMF10LUUE-TH	6	80	10	17	55	6	35	6	27	4.5	7.5	4.1	12	12	586	865	LMF10LE-TH		
LMF12LUUE-TH	6	98	12	19	57	6	38	6	30	4.5	7.5	4.1	12	12	605	900	LMF12LE-TH		
LMF16LUUE-TH	5	155	16	26	70	6	44	6	36	4.5	7.5	4.1	12	12	966	1430	LMF16LE-TH		

LMK-LUUE-TH <Built-in Synthetics Resin Retainer> 合成树脂保持器

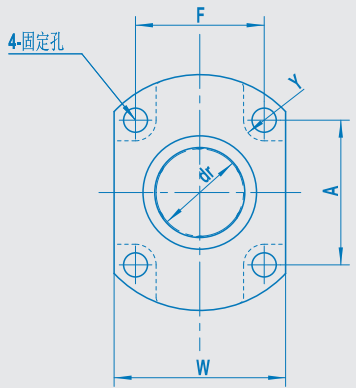


Nominal Part No			Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange														
						I	DF	t	DP	K	X	Y	Z							
LMK6LUUE-TH LMK8LUUE-TH LMK10LUUE-TH	6	21	6	10	35	5	25	5	19	20	3.5	6	3.1	12	12	205	305	LMK6LE-TH LMK8LE-TH LMK10LE-TH		
	6	35	8	13	45	5	28	5	22	23	3.5	6	3.1	12	12	380	556			
	6	65	10	17	55	6	35	6	27	27	4.5	7.5	4.1	12	12	586	865			
LMK12LUUE-TH LMK16LUUE-TH	6	85	12	19	57	6	38	6	30	29	4.5	7.5	4.1	12	12	605	900	LMK12LE-TH LMK16LE-TH		
	5	136	16	26	70	6	44	6	36	34	4.5	7.5	4.1	12	12	966	1430			

LMH-LUUE-TH <Built-in Synthetics Resin Retainer>
合成树脂保持器



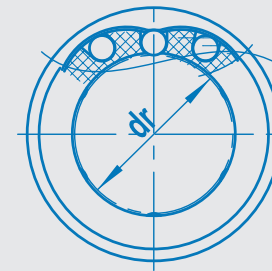
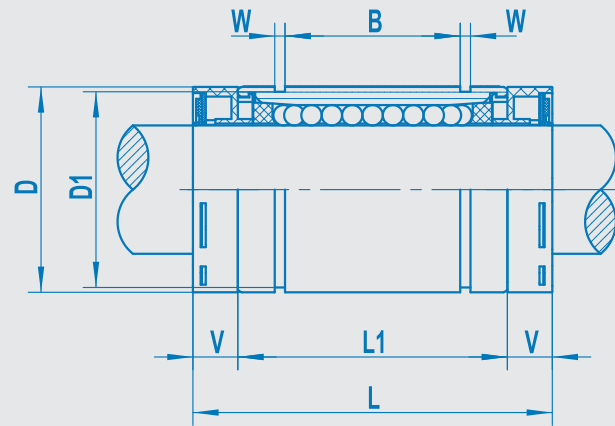
LMH...UU-TH
12及以下



LMH...UU-TH
16及以上

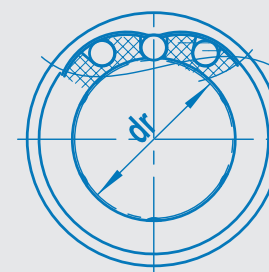
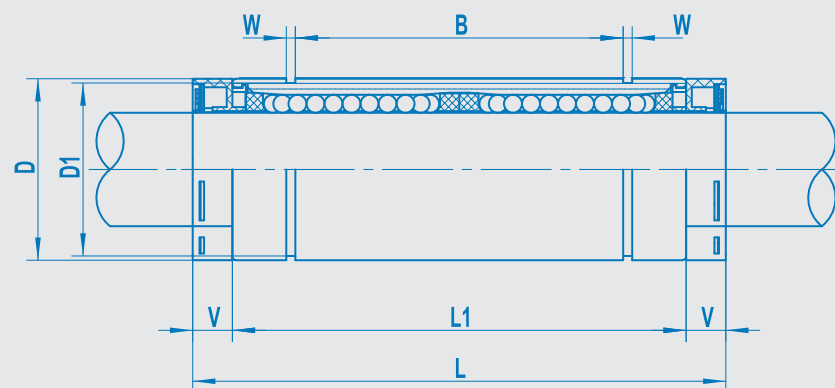
Nominal Part No			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)										Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange																	
						I	DF	t	A	W	F	X	Y	Z									
LMH6LUUE-TH LMH8LUUE-TH LMH10LUUE-TH	6	20	6	10	35	5	25	5	19	16		3.5	6	3.1	12	12	205	305	LMH6LE-TH LMH8LE-TH LMH10LE-TH				
	6	36	8	13	45	5	28	5	22	19	-	3.5	6	3.1	12	12	380	556					
	6	75	10	17	55	6	35	6	27	23	-	4.5	7.5	4.1	12	12	586	865					
LMH12LUUE-TH LMH16LUUE-TH	6	85	12	19	57	6	38	6	30	25	-	4.5	7.5	4.1	12	12	605	900	LMH12LE-TH LMH16LE-TH				
	5	140	16	26	70	6	44	6	36	32	24	4.5	7.5	4.1	12	12	966	1430					

LM-UU-OL <Built-in Synthetics Resin Retainer> 合成树脂保持器



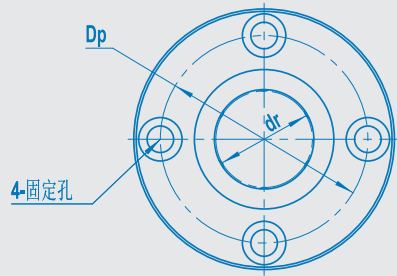
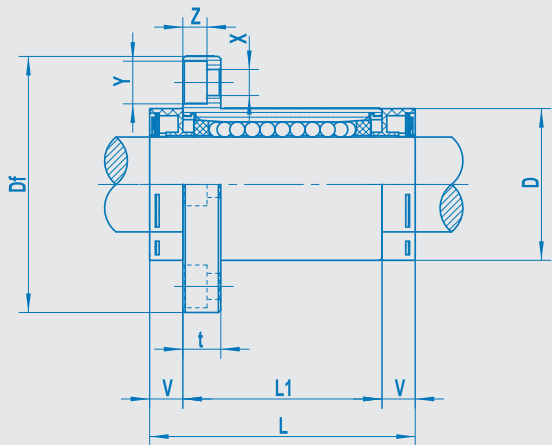
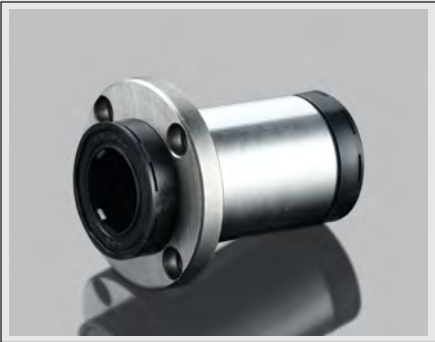
Nominal Part No				Nominal Shaft Diameter (mm)	Major Dimensions and Tolerance (mm)										Eccentricity (max) μm	Basic Load Dynamic C(N)	Rating Static Co(N)
		Ball Circuit	Weight g	dr	D	L	L2	Tolerance	B	Tolerance	U	W	D1				
LM10UU-OL	LM10-OL	4	28	10	19	39	29		10.4		5	1.3	18	12	370	545	
LM12UU-OL	LM12-OL	4	31	12	21	41	30	0	20.4	1.3	5.6	1.3	20	12	410	595	
LM16UU-OL	LM16-OL	5	71	16	28	49	37	-0.2	23.3	1.6	6	1.6	27	12	770	1175	
LM20UU-OL	LM20-OL	5	95	20	32	56	42		27.3		7	1.6	30.5	15	880	1365	
LM25UU-OL	LM25-OL	6	214	25	40	77	59	0	37.3		9	1.85	38	15	975	1565	
LM30UU-OL	LM30-OL	6	250	30	45	84	64	-0.3	40.8	1.85	10	1.85	43	15	1565	2735	

LM-LUU-OL <Built-in Synthetics Resin Retainer> 合成树脂保持器



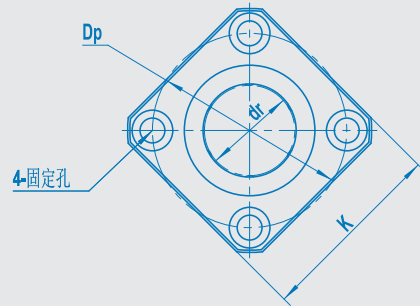
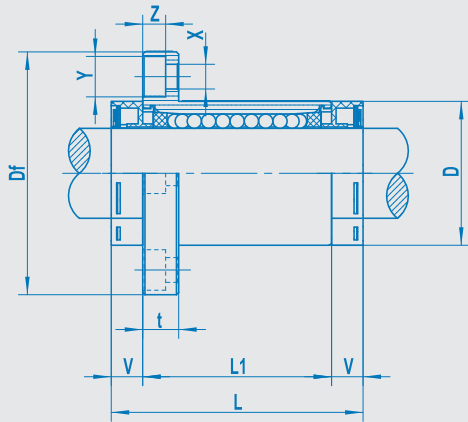
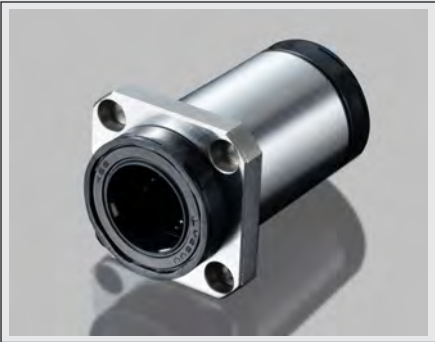
Nominal Part No				Nominal Shaft Diameter (mm)	Major Dimensions and Tolerance (mm)										Eccentricity (max) μm	Basic Load Dynamic C(N)	Rating Static Co(N)
		Ball Circuit	Weight g	dr	D	L	L2	Tolerance	B	Tolerance	U	W	D1				
LM10UU-OL	LM10-OL	4	52	10	$\left[\begin{smallmatrix} 0 \\ -0.010 \end{smallmatrix}\right]$	19	65	55	$\left[\begin{smallmatrix} 0 \\ -0.3 \end{smallmatrix}\right]$	10.4	$\left[\begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}\right]$	5	1.3	18	15	585	1095
LM12UU-OL	LM12-OL	4	56	12	$\left[\begin{smallmatrix} 0 \\ -0.021 \end{smallmatrix}\right]$	21	68	57	$\left[\begin{smallmatrix} 0 \\ -0.3 \end{smallmatrix}\right]$	20.4	$\left[\begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}\right]$	5.6	1.3	20	15	655	1195
LM16UU-OL	LM16-OL	5	132	16	$\left[\begin{smallmatrix} 0 \\ -0.010 \end{smallmatrix}\right]$	28	82	70	$\left[\begin{smallmatrix} 0 \\ -0.3 \end{smallmatrix}\right]$	23.3	$\left[\begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}\right]$	6	1.6	27	15	1225	2345
LM20UU-OL	LM20-OL	5	176.5	20	$\left[\begin{smallmatrix} 0 \\ -0.012 \end{smallmatrix}\right]$	32	94	80	$\left[\begin{smallmatrix} 0 \\ -0.4 \end{smallmatrix}\right]$	27.3	$\left[\begin{smallmatrix} 0 \\ -0.6 \end{smallmatrix}\right]$	7	1.6	30.5	20	1395	2735
LM25UU-OL	LM25-OL	6	419	25	$\left[\begin{smallmatrix} 0 \\ -0.012 \end{smallmatrix}\right]$	40	130	112	$\left[\begin{smallmatrix} 0 \\ -0.4 \end{smallmatrix}\right]$	37.3	$\left[\begin{smallmatrix} 0 \\ -0.6 \end{smallmatrix}\right]$	9	1.85	38	20	1555	3135
LM30UU-OL	LM30-OL	6	471	30	$\left[\begin{smallmatrix} 0 \\ -0.012 \end{smallmatrix}\right]$	45	143	123	$\left[\begin{smallmatrix} 0 \\ -0.4 \end{smallmatrix}\right]$	40.8	$\left[\begin{smallmatrix} 0 \\ -0.6 \end{smallmatrix}\right]$	10	1.85	43	20	2485	5485

LMFUU-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器



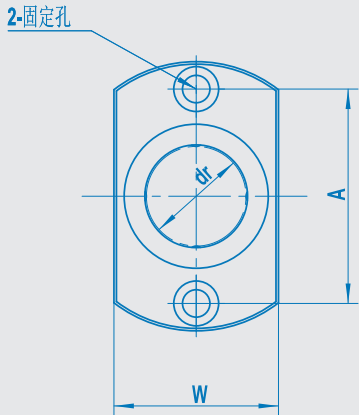
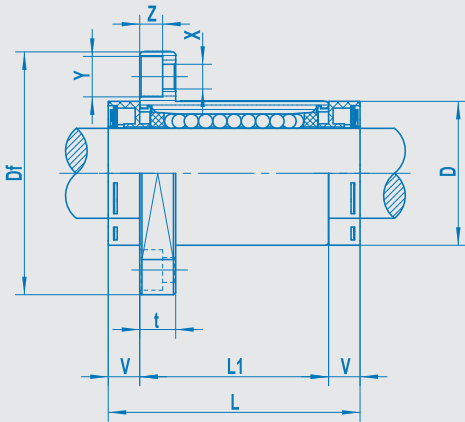
Nominal Part No			Major Dimensions and Tolerance (mm)							Major Dimensions and Tolerance (mm)							Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	D	L	L1	Flange														
			Tolerance	Tolerance			Tolerance	V	Df	t	DP	X	Y	Z							
LMF10UU-OL	4	76	10	0	19	0	39	29		5	40	6	29	4.5	7.5	4.1	12	12	372	549	LMF10-MX
LMF12UU-OL	4	80	12	-0.009	21	-0.016	41	30		5.5	42	6	32	4.5	7.5	4.1	12	12	412	598	LMF12-MX
LMF16UU-OL	5	127	16		28		49	37		6	48	6	38	4.5	7.5	4.1	12	12	775	1180	LMF16-MX
LMF20UU-OL	5	191	20	0	32	0	56	42		7	54	8	43	5.5	9	5.1	15	15	882	1370	LMF20-MX
LMF25UU-OL	6	359	25	-0.010	40	-0.019	77	59	±0.3	9	62	8	51	5.5	9	5.1	15	15	980	1570	LMF25-MX
LMF30UU-OL	6	494	30		45		84	64		10	74	10	60	6.6	11	6.1	15	15	1570	2740	LMF30-MX
LMF35UU-OL	6	678	35	0	52	0	92	70		11	82	10	67	6.6	11	6.1	20	20	1670	3140	LMF35-MX
LMF40UU-OL	6	1093	40	-0.012	60	-0.022	104	80		12	96	13	78	9	14	8.1	20	20	2160	4020	LMF40-MX
LMF50UU-OL	6	2263	50		80		128	100		14	116	13	98	9	14	8.1	20	20	3820	7940	LMF45-MX

LMKUU-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器

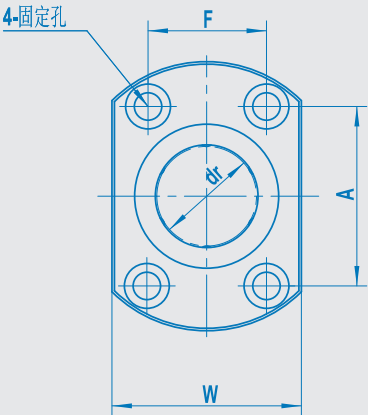


Nominal Part No			Major Dimensions and Tolerance (mm)								Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	Tolerance	D	Tolerance	L	L1	Tolerance	Flange													
										V	Df	K	t	DP	X	Y	Z						
LMK10UU-OL LMK12UU-OL LMK16UU-OL	4 4 5	56 61 111	10 12 16	0 -0.009	19 21 28	0 -0.016	39 41 49	29 30 37		5 5.5 6	40 42 48	30 32 37	6 6 6	29 32 38	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	12 12 12	12 12 12	372 412 775	549 598 1180	LMK10-MX LMK12-MX LMK16-MX	
LMK20UU-OL LMK25UU-OL LMK30UU-OL	5 6 6	156 319 399	20 25 30	0 -0.010	32 40 45	0 -0.019	56 77 84	42 59 64	±0.3	7 9 10	54 62 74	42 50 58	8 8 10	43 51 60	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	15 15 15	15 15 15	882 980 1570	1370 1570 2740	LMK20-MX LMK25-MX LMK30-MX	
LMK35UU-OL LMK40UU-OL LMK50UU-OL	6 6 6	588 913 2063	35 40 50	0 -0.012	52 60 80	0 -0.022	92 104 128	70 80 100		11 12 14	82 96 116	64 75 92	10 13 13	67 78 98	6.6 9 9	11 14 14	6.1 8.1 8.1	20 20 20	20 20 20	1670 2160 3820	3140 4020 7940	LMK35-MX LMK40-MX LMK45-MX	

LMHUU-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器



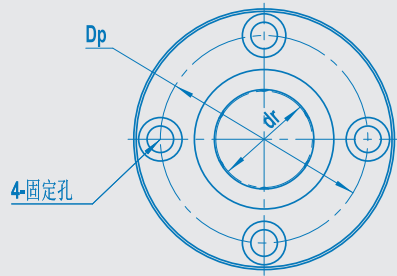
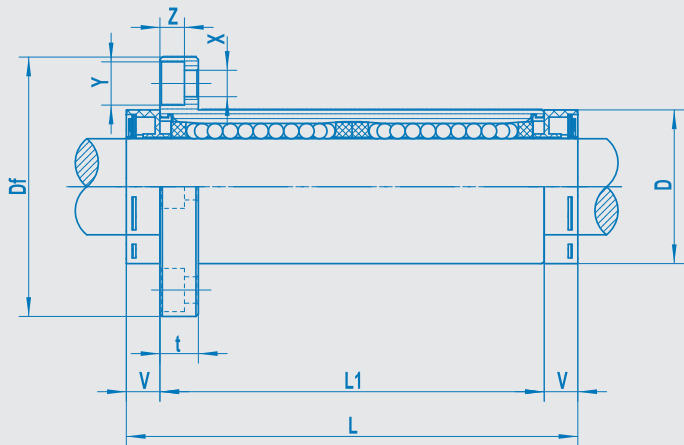
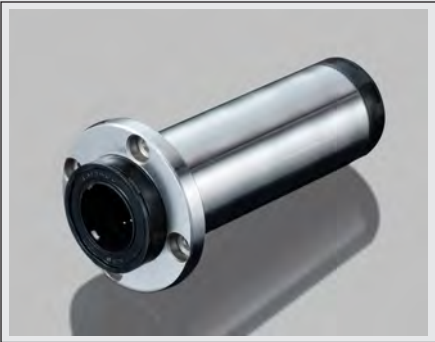
LMH13-OL及以下



LMH16-OL及以上

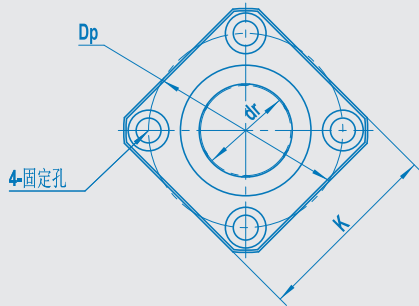
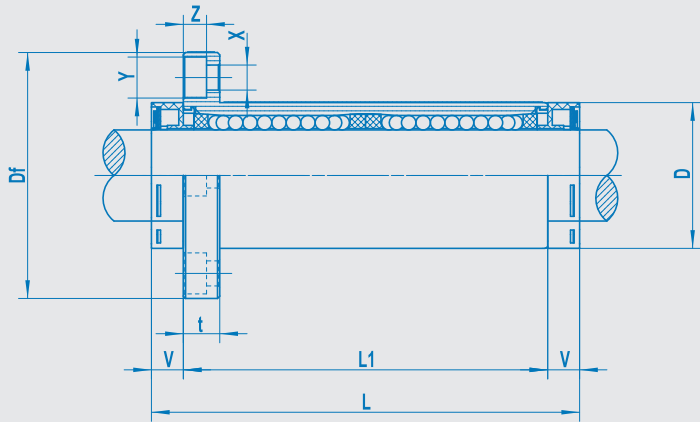
Nominal Part No			Major Dimensions and Tolerance (mm)								Major Dimensions and Tolerance (mm)									Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	Tolerance	D	Tolerance	L	L1	Tolerance	Flange														
										V	Df	W	t	A	F	X	Y	Z						
LMH10UU-OL LMH12UU-OL LMH16UU-OL	4 4 5	68 72 119	10 12 16	$\begin{bmatrix} 0 \\ -0.009 \end{bmatrix}$	19 21 28	$\begin{bmatrix} 0 \\ -0.016 \end{bmatrix}$	39 41 49	29 30 37		5 5.5 6	40 42 48	25 27 34	6 6 6	29 32 31	- - 22	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	12 12 12	12 12 12	372 412 775	549 598 1180	LMH10-MX LMH12-MX LMH16-MX	
LMH20UU-OL LMH25UU-OL LMH30UU-OL	5 6 6	178 344 412	20 25 30	$\begin{bmatrix} 0 \\ -0.010 \end{bmatrix}$	32 40 45	$\begin{bmatrix} 0 \\ -0.019 \end{bmatrix}$	56 77 84	42 59 64	±0.3	7 9 10	54 62 74	38 46 51	8 8 10	36 40 49	24 32 35	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	15 15 15	15 15 15	882 980 1570	1370 1570 2740	LMH20-MX LMH25-MX LMH30-MX	
LMH35UU-OL LMH40UU-OL LMH50UU-OL	- 6 -	603 942 2100	35 40 50	$\begin{bmatrix} 0 \\ -0.012 \end{bmatrix}$	52 60 80	$\begin{bmatrix} 0 \\ -0.022 \end{bmatrix}$	92 104 128	70 80 100		11 12 14	82 96 116	58 66 86	10 13 13	55 64 80	38 45 56	6.6 9 9	11 14 14	6.1 8.1 8.1	17 - -	17 - -	1670 2160 3820	3140 4020 7940	LMH35-MX LMH40-MX LMH45-MX	

LMF-LUU-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器



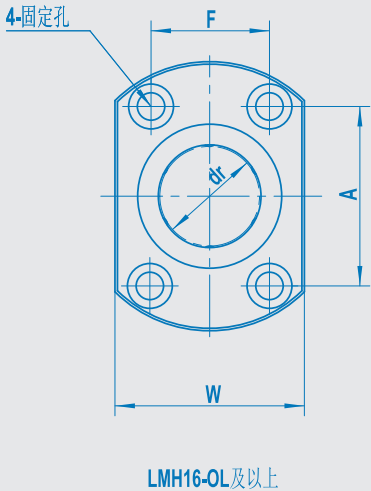
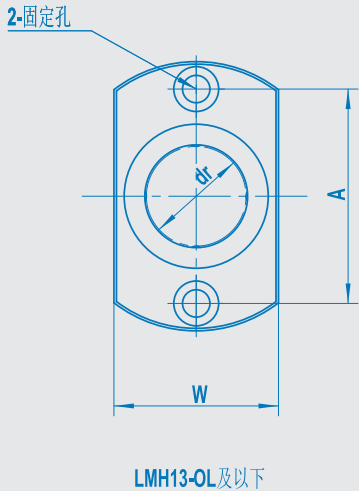
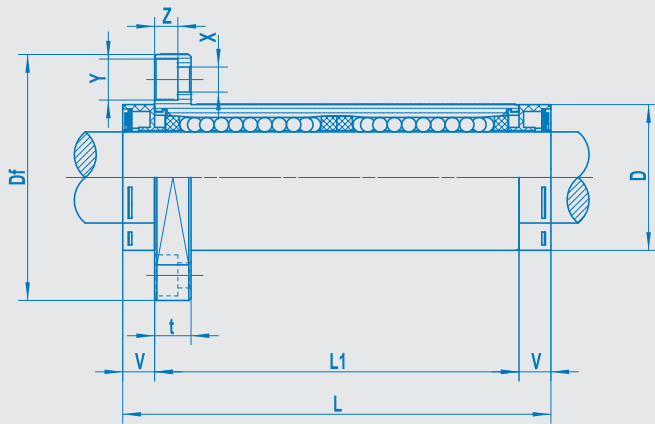
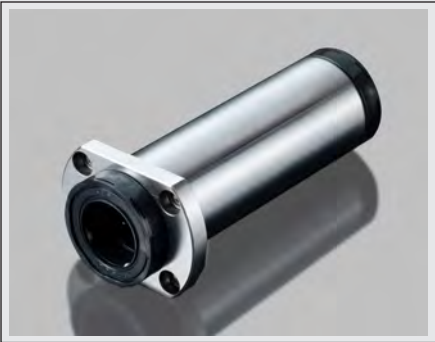
Nominal Part No			Major Dimensions and Tolerance (mm)								Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L	L1	Tolerance	Flange															
								V	Df	t	DP	X	Y	Z									
LMF10LUU-OL LMF12LUU-OL LMF16LUU-OL	4 4 5	102 114 197	10 12 16	0 -0.010	19 21 28	0 -0.016	65 68 82	55 57 70		5 5.5 6	40 42 48	6 6 6	29 32 38	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	588 657 1230	1100 1200 2350	LMF10L-MX LMF12L-MX LMF16L-MX		
LMF20LUU-OL LMF25LUU-OL LMF30LUU-OL	5 6 6	271 559 704	20 25 30	0 -0.012	32 40 45	0 -0.019	94 130 143	80 112 123	±0.3	7 9 10	54 62 74	8 8 10	43 51 60	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1400 1560 2490	2740 3140 5490	LMF20L-MX LMF25L-MX LMF30L-MX		
LMF35LUU-OL LMF40LUU-OL LMF50LUU-OL	6 6 6	1048 1603 3663	35 40 50	0 -0.015	52 60 80	0 -0.022	157 175 220	135 151 192		11 12 14	82 96 116	10 13 13	67 78 98	6.6 9 9	11 14 14	6.1 8.1 8.1	25 25 25	25 25 25	2650 3430 6080	6270 8040 15900	LMF35L-MX LMF40L-MX LMF45L-MX		

LMK-LUU-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器



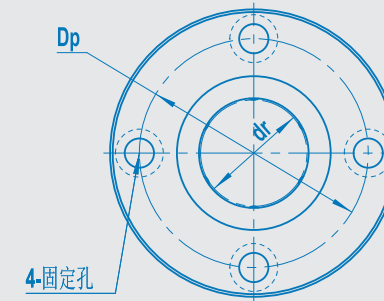
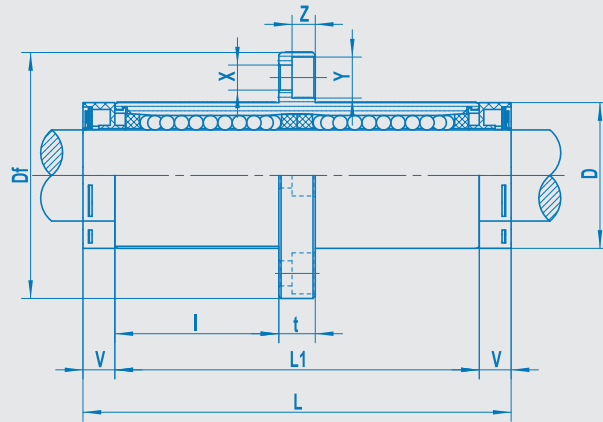
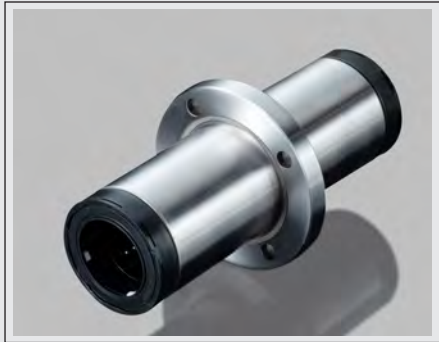
Nominal Part No			Major Dimensions and Tolerance (mm)								Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L	L1	Tolerance	Flange															
								V	Df	K	t	DP	X	Y	Z								
LMK10LUU-OL LMK12LUU-OL LMK16LUU-OL	4 4 5	82 94 172	10 12 16	0 -0.010	19 21 28	0 -0.016	65 68 82	55 57 70		5 5.5 6	40 42 48	30 32 37	6 6 6	29 32 38	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	588 657 1230	1100 1200 2350	LMK10L-MX LMK12L-MX LMK16L-MX	
LMK20LUU-OL LMK25LUU-OL LMK30LUU-OL	5 6 6	236 519 614	20 25 30	0 -0.012	32 40 45	0 -0.019	94 130 143	80 112 123	±0.3	7 9 10	54 62 74	42 50 58	8 8 10	43 51 60	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1400 1560 2490	2740 3140 5490	LMK20L-MX LMK25L-MX LMK30L-MX	
LMK35LUU-OL LMK40LUU-OL LMK50LUU-OL	6 6 6	958 1413 3463	35 40 50	0 -0.015	52 60 80	0 -0.022	157 175 220	135 151 192		11 12 14	82 96 116	64 75 92	10 13 13	67 78 98	6.6 9 9	11 14 14	6.1 8.1 8.1	25 25 25	25 25 25	2650 3430 6080	6270 8040 15900	LMK35L-MX LMK40L-MX LMK45L-MX	

LMH-LUU-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器

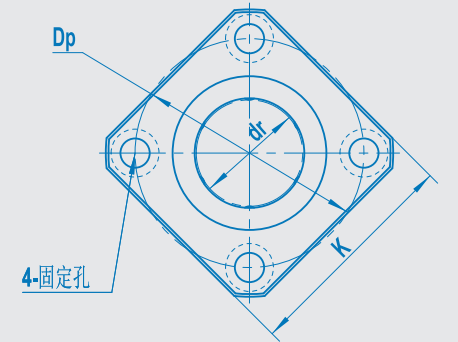


Nominal Part No			Major Dimensions and Tolerance (mm)								Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L	L1	Tolerance	Flange															
								V	Df	W	t	A	F	X	Y	Z							
LMH10LUU-OL LMH12LUU-OL LMH16LUU-OL	4 4 5	94 106 189	10 12 16 0 -0.010	19 21 28 0 -0.016	65 68 82	55 57 70		5 5.5 6	40 42 48	25 27 34	6 6 6	29 32 31	- - 22	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	588 657 1230	1100 1200 2350	LMH10L-MX LMH12L-MX LMH16L-MX		
LMH20LUU-OL LMH25LUU-OL LMH30LUU-OL	5 6 6	258 544 669	20 25 30 0 -0.012	32 40 45 0 -0.019	94 130 143	80 112 123	±0.3	7 9 10	54 62 74	38 46 51	8 8 10	36 40 49	24 32 35	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1400 1560 2490	2740 3140 5490	LMH20L-MX LMH25L-MX LMH30L-MX		
LMH35LUU-OL LMH40LUU-OL LMH50LUU-OL	- 6 6	973 1456 3500	35 40 50 0 -0.015	52 60 80 0 -0.022	157 175 220	135 151 192		11 12 14	82 96 116	58 66 86	10 13 13	55 64 80	38 45 56	6.6 9 9	11 14 14	6.1 8.1 8.1	25 25 25	25 25 25	2650 3430 6080	6270 8040 15900	LMH35L-MX LMH40L-MX LMH45L-MX		

LMFC/KC-UU-OL <Built-in Synthetics Resin Retainer> 合成树脂保持器



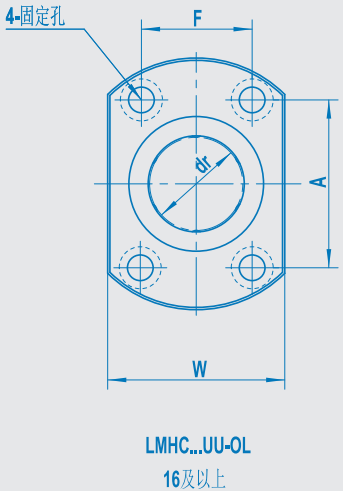
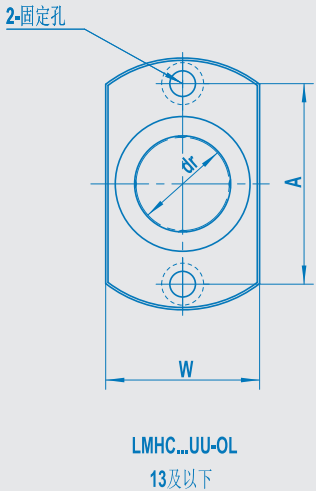
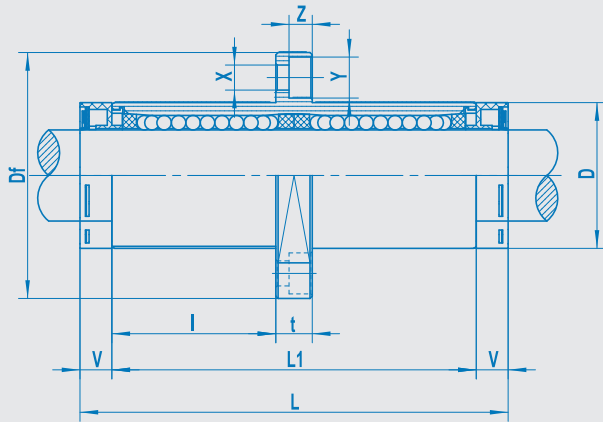
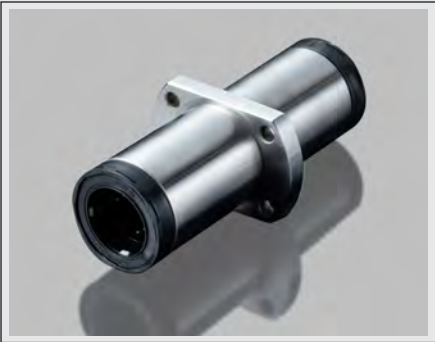
LMFC...UU-OL



LMKC...UU-OL

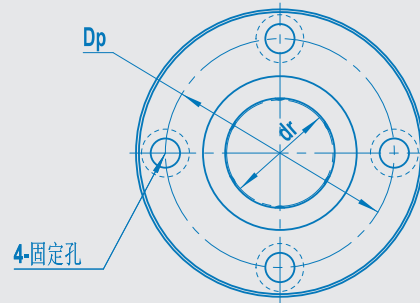
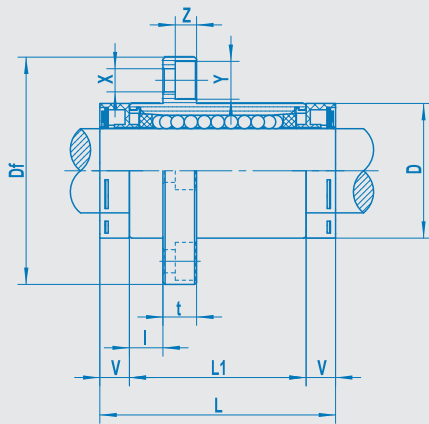
	Major Dimensions and Tolerance (mm)										Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
Resin Retainer 合成树脂保持器	dr	D	Tolerance	L	L1	Tolerance	Flange										dynamic C(N)	Static Co(N)								
							V	I	Df	K	t	Dp	X	Y	Z											
LMFC/KC10UU-OL LMFC/KC12UU-OL LMFC/KC16UU-OL	10 12 16	0 -0.010	19 21 28	0 -0.016	65 68 82	55 57 70		5 5 6	24.5 25.5 32	40 42 48	30 32 37	6 6 6	29 32 38	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	588 657 1230	1100 1200 2350	102/82 114/94 197/172	10 12 16				
LMFC/KC20UU-OL LMFC/KC25UU-OL LMFC/KC30UU-OL	20 25 30	0 -0.012	32 40 45	0 -0.019	94 130 143	80 112 123	±0.3	7 9 10	36 52 56.5	54 62 74	42 50 58	8 8 10	43 51 60	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1400 1560 2490	2740 3140 5490	271/236 559/519 704/614	20 25 30				
LMFC/KC35UU-OL LMFC/KC40UU-OL LMFC/KC50UU-OL	35 40 50	0 -0.014	52 60 80	0 -0.022	157 175 220	135 151 192		11 12 14	62.5 69 89.5	82 96 116	64 75 92	10 13 13	67 78 98	6.6 9 9	11 14 14	6.1 8.1 8.1	25 25 25	25 25 25	2650 3430 6080	6270 8040 15900	1048/958 1603/1413 3663/3463	35 40 50				

LMHC-UU-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器

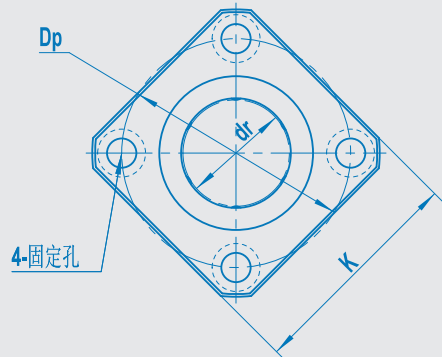


	Major Dimensions and Tolerance (mm)										Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
Resin Retainer 合成树脂保持器	dr	Tolerance	D	Tolerance	L	L1	Tolerance	Flange												dynamic C(N)			Static Co(N)			
								V	I	Df	W	t	A	F	X	Y	Z									
LMFHC10UU-OL LMFHC12UU-OL LMFHC16UU-OL	10 12 16	$\begin{bmatrix} 0 \\ -0.010 \end{bmatrix}$	19 21 28	$\begin{bmatrix} 0 \\ -0.016 \end{bmatrix}$	65 68 82	55 57 70		5 5 6	24.5 25.5 32	40 42 48	25 27 34	6 6 6	29 32 31	- - 22	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	588 657 1230	1100 1200 2350	94 106 189	10 12 16			
LMFHC20UU-OL LMFHC25UU-OL LMFHC30UU-OL	20 25 30	$\begin{bmatrix} 0 \\ -0.012 \end{bmatrix}$	32 40 45	$\begin{bmatrix} 0 \\ -0.019 \end{bmatrix}$	94 130 143	80 112 123	±0.3	7 9 10	36 52 56.5	54 62 74	38 46 51	8 8 10	36 40 49	24 32 35	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1400 1560 2490	2740 3140 5490	258 544 669	20 25 30			
LMFHC35UU-OL LMFHC40UU-OL LMFHC50UU-OL	35 40 50	$\begin{bmatrix} 0 \\ -0.014 \end{bmatrix}$	52 60 80	$\begin{bmatrix} 0 \\ -0.022 \end{bmatrix}$	157 175 220	135 151 192		11 12 14	62.5 69 89.5	82 96 116	58 66 86	10 13 13	55 64 80	38 45 56	6.6 9 9	11 14 14	6.1 8.1 8.1	25 25 25	25 25 25	2650 3430 6080	6270 8040 15900	973 1456 3500	35 40 50			

LMF/K-UU-E-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器



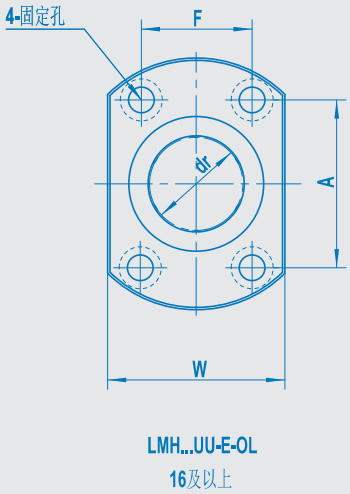
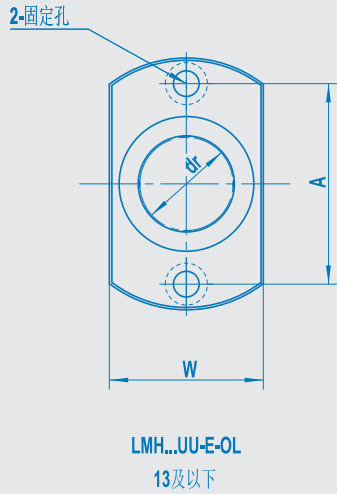
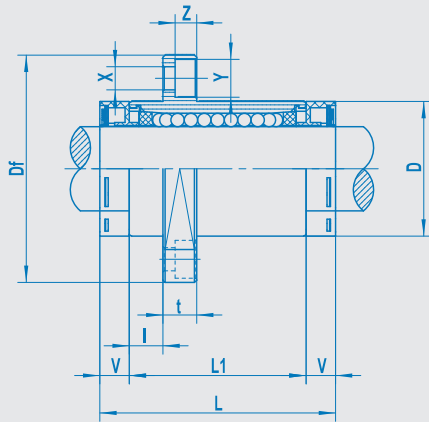
LMF...UU-E-OL



LMK...UU-E-OL

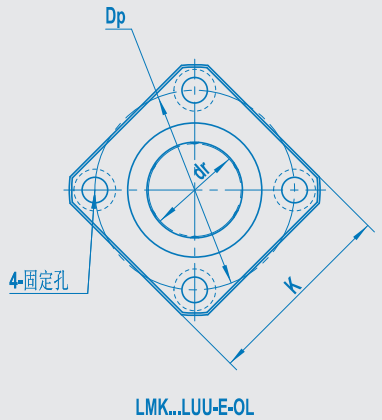
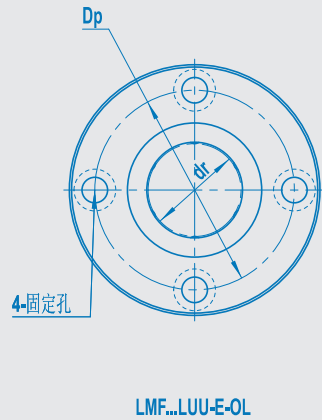
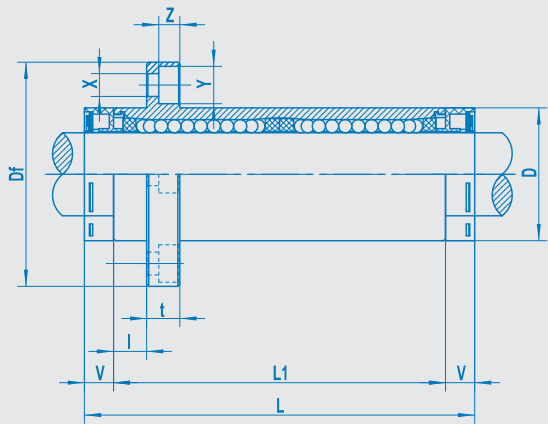
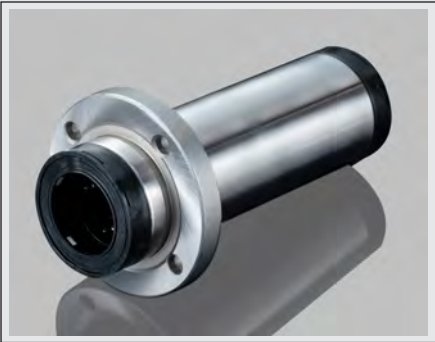
	Major Dimensions and Tolerance (mm)							Major Dimensions and Tolerance (mm)									Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
Resin Retainer 合成树脂保持器	dr	D Tolerance	L Tolerance	L1 Tolerance	Flange									dynamic C(N)	Static Co(N)							
					V	I	Df	K	t	Dp	X	Y	Z									
LMF/K10UU-E-OL LMF/K12UU-E-OL LMF/K16UU-E-OL	10 12 16	0 -0.009	19 21 28	0 -0.016	39 41 49	29 30 37		5 5.5 6	6 6 6	40 42 48	30 32 37	6 6 6	29 32 38	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	12 12 12	12 12 12	372 412 775	549 598 1180	75/56 80/61 127/111	10 12 16
LMF/K20UU-E-OL LMF/K25UU-E-OL LMF/K30UU-E-OL	20 25 30	0 -0.010	32 40 45	0 -0.019	56 77 84	42 59 64	±0.3	7 9 10	8 8 10	54 62 74	42 50 58	8 8 10	43 51 60	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	15 15 15	15 15 15	882 980 1570	1370 1570 2740	191/156 359/319 494/399	20 25 30
LMF/K35UU-E-OL LMF/K40UU-E-OL LMF/K50UU-E-OL	35 40 50	0 -0.012	52 60 80	0 -0.022	92 104 128	70 80 100		11 12 14	10 13 13	82 96 116	64 75 92	10 13 13	67 78 98	6.6 9 9	11 14 14	6.1 8.1 8.1	20 20 20	20 20 20	1670 2160 3820	3140 4020 4940	678/588 1093/913 2263/2063	35 40 50

LMHUU-E-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器



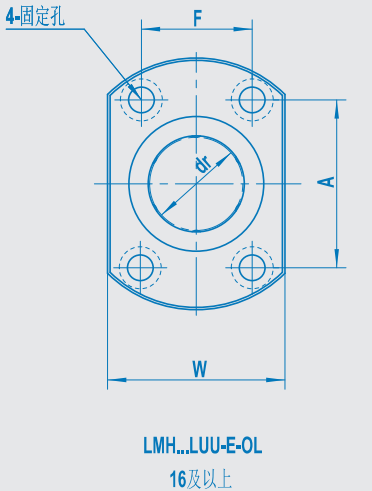
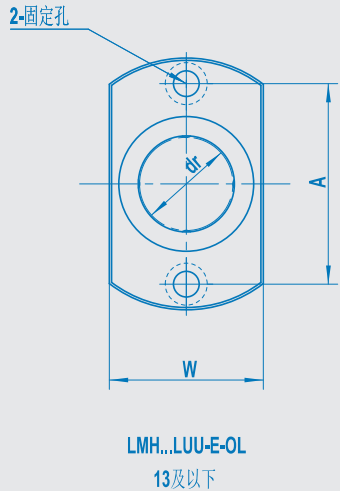
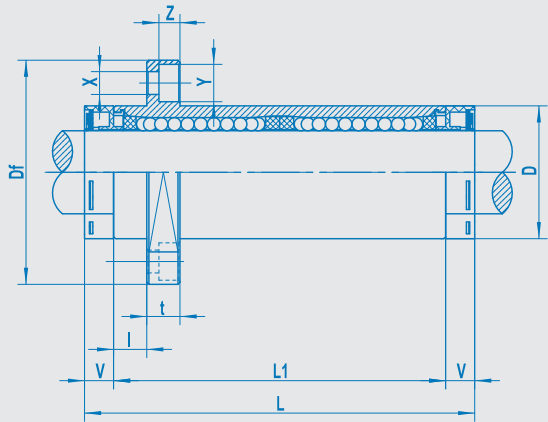
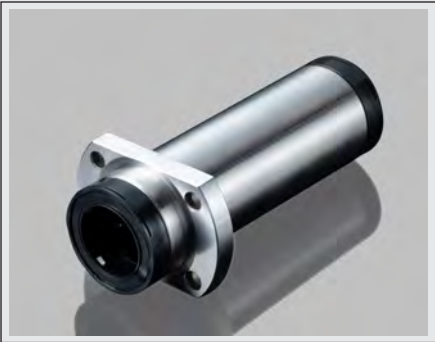
	Major Dimensions and Tolerance (mm)							Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Resin Retainer 合成树脂保持器	dr	D	L	L1	Flange	V	I	Df	W	t	A	F	X	Y	Z	dynamic C(N)	Static Co(N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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LMF/K-LUU-E-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器



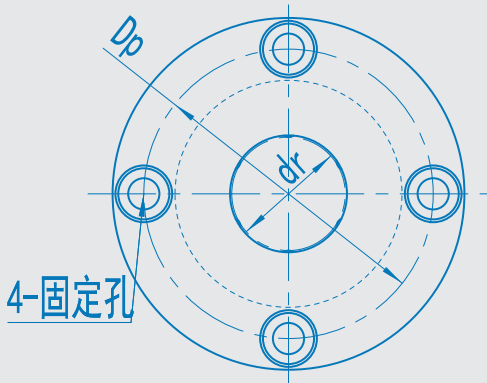
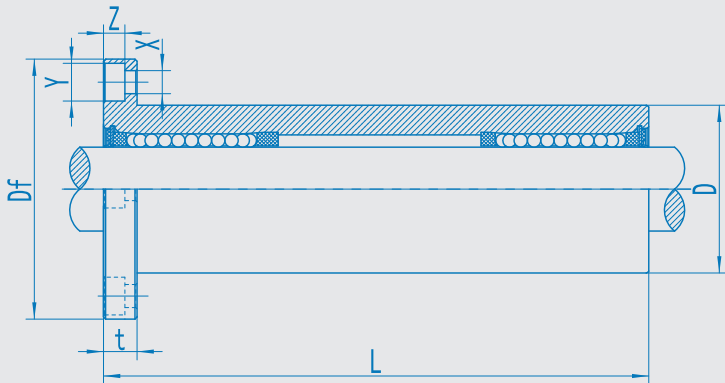
	Major Dimensions and Tolerance (mm)							Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
Resin Retainer 合成树脂保持器	dr	D Tolerance	L Tolerance	L1 Tolerance	Flange										dynamic C(N)	Static Co(N)							
					V	I	Df	K	t	Dp	X	Y	Z										
LMF/K10LUU-E-OL LMF/K12LUU-E-OL LMF/K16LUU-E-OL	10 12 16	$\begin{bmatrix} 0 \\ -0.010 \end{bmatrix}$	19 21 28	$\begin{bmatrix} 0 \\ -0.016 \end{bmatrix}$	65 68 82	55 57 70		5 5.5 6	6 6 6	40 42 48	30 32 37	6 6 6	29 32 38	4.5 4.5 4.5	7.5 7.5 7.5	4.1 4.1 4.1	15 15 15	15 15 15	588 657 1230	1100 1200 2350	102/82 114/94 197/172	10 12 16	
LMF/K20LUU-E-OL LMF/K25LUU-E-OL LMF/K30LUU-E-OL	20 25 30	$\begin{bmatrix} 0 \\ -0.012 \end{bmatrix}$	32 40 45	$\begin{bmatrix} 0 \\ -0.019 \end{bmatrix}$	94 130 143	80 112 123	±0.3	7 9 10	8 8 10	54 62 74	42 50 58	8 8 10	43 51 60	5.5 5.5 6.6	9 9 11	5.1 5.1 6.1	20 20 20	20 20 20	1400 1560 2490	2740 3140 5490	271/236 559/519 704/614	20 25 30	
LMF/K35LUU-E-OL LMF/K40LUU-E-OL LMF/K50LUU-E-OL	35 40 50	$\begin{bmatrix} 0 \\ -0.015 \end{bmatrix}$	52 60 80	$\begin{bmatrix} 0 \\ -0.022 \end{bmatrix}$	157 175 220	135 151 192		11 12 14	10 13 13	82 96 116	64 75 92	10 13 13	67 78 98	6.6 9 9	11 14 14	6.1 8.1 8.1	25 25 25	25 25 25	2650 3430 6080	6270 8040 15900	1048/958 1603/1413 3663/3463	35 40 50	

LMH-LUU-E-OL <Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)										Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
Resin Retainer 合成树脂保持器	dr	D	L	L1	Flange															dynamic C(N)			Static Co(N)			
					Tolerance	Tolerance	Tolerance	V	I	Df	W	t	A	F	X	Y	Z									
LMH10LUU-E-OL LMH12LUU-E-OL LMH16LUU-E-OL	10		19		65	55		5	6	40	25	6	29	-	4.5	7.5	4.1	15	15	588	1100	94	10			
	12	0 -0.010	21	0 -0.016	68	57		5.5	6	42	27	6	32	-	4.5	7.5	4.1	15	15	657	1200	106	12			
	16		28		82	70		6	6	48	34	6	31	22	4.5	7.5	4.1	15	15	1230	2350	189	16			
LMH20LUU-E-OL LMH25LUU-E-OL LMH30LUU-E-OL	20		32		94	80		7	8	54	38	8	36	24	5.5	9	5.1	20	20	1400	2740	258	20			
	25	0 -0.012	40	0 -0.019	130	112	±0.3	9	8	62	46	8	40	32	5.5	9	5.1	20	20	1560	3140	544	25			
	30		45		143	123		10	10	74	51	10	49	35	6.6	11	6.1	20	20	2490	5490	669	30			
LMH35LUU-E-OL LMH40LUU-E-OL LMH50LUU-E-OL	35		52		157	135		11	10	82	58	10	55	38	6.6	11	6.1	25	25	2650	6270	973	35			
	40	0 -0.015	60	0 -0.022	175	151		12	13	96	66	13	64	45	9	14	8.1	25	25	3430	8040	1456	40			
	50		80		220	192		14	13	116	86	13	80	56	9	14	8.1	25	25	6080	15900	3500	50			

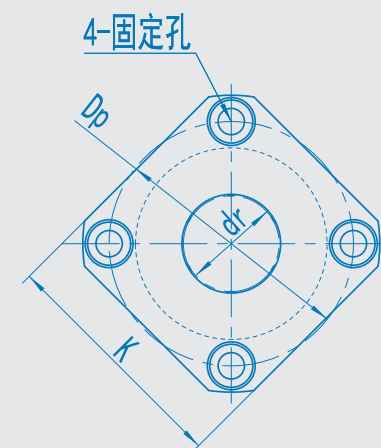
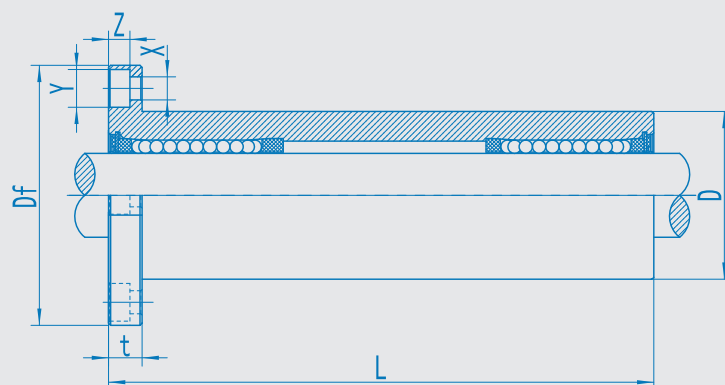
LMF-UU-TR <Built-in Synthetics Resin Retainer>
合成树脂保持器



Nominal Part No			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange													
						Df	t	DP	X	Y	Z								
LMF10UU-TR	4	215	10 ⁰ -0.012	23 ⁰ -0.016	82 ⁰	43	6	33	4.5	7.5	4.1	20	25	585	1100	LMF10-TR			
LMF12UU-TR	4	256	12 ⁰ 0.015	26 ⁰	86 ⁰	46	6	36	4.5	7.5	4.1	20	25	650	1200	LMF12-TR			
LMF16UU-TR	4	439	16 ⁰ 0.015	32 ⁰	105 ⁰	54	8	43	5.5	9	5.1	25	25	1230	2300	LMF16-TR			
LMF20UU-TR	5	780	20 ⁰	40 ⁰ -0.019	120 ⁰	62	8	51	5.5	9	5.1	25	25	1400	2700	LMF20-TR			
LMF25UU-TR	6	1226	25 ⁰ -0.018	45 ⁰	167 ⁰ -0.3	74	10	60	6.6	11	6.1	25	25	1550	3100	LMF25-TR			
LMF30UU-TR	6	1581	30 ⁰	52 ⁰	184 ⁰	82	10	67	6.6	11	6.1	25	25	2490	5450	LMF30-TR			
LMF35UU-TR	6	2585	35 ⁰	60 ⁰	200 ⁰	96	13	78	9	14	8.1	30	30	2650	6270	LMF35-TR			
LMF40UU-TR	6	2958	40 ⁰ -0.021	65 ⁰ -0.022	230 ⁰	101	13	83	9	14	8.1	30	30	3430	8040	LMF40-TR			

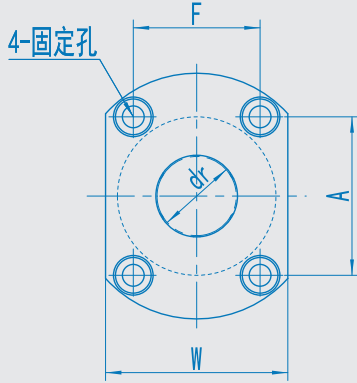
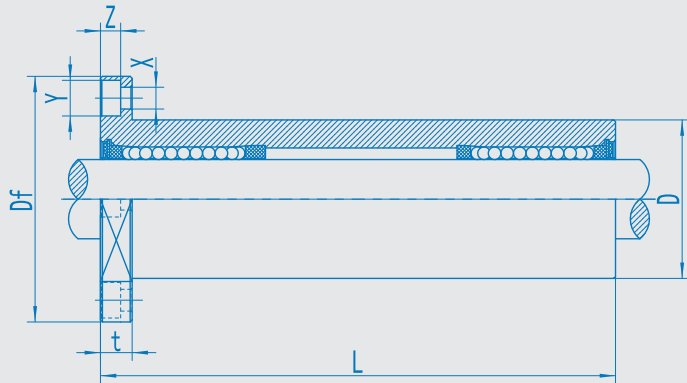
LMK-UU-TR <Built-in Synthetics Resin Retainer>

合成树脂保持器



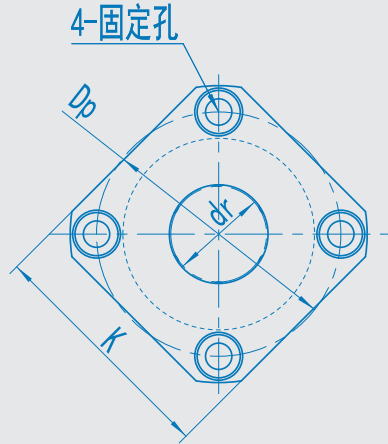
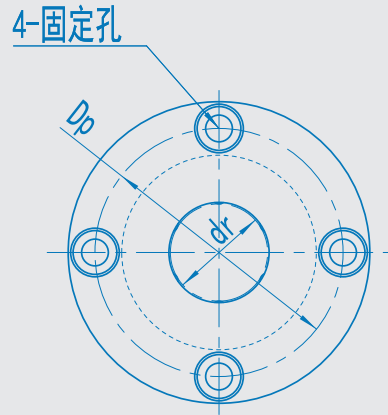
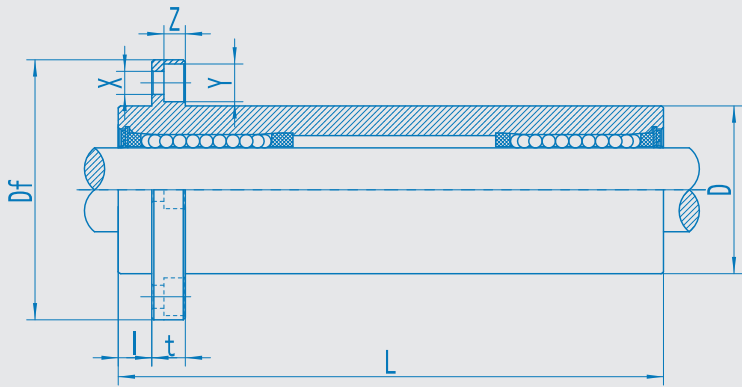
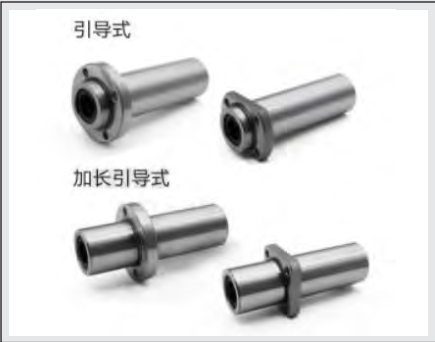
Nominal Part No			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)							Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr	Tolerance	D	Tolerance	L	Tolerance	Flange											
									Df	t	DP	K	X	Y	Z					
LMK10UU-TR LMK12UU-TR LMK16UU-TR	4	198	10	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	23	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	82	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	43	6	33	34	4.5	7.5	4.1	20	20	585	1100	LMK10-TR LMK12-TR LMK16-TR
	4	235	12	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	26	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	86	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	46	6	36	35	4.5	7.5	4.1	20	20	650	1200	
	4	408	16	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	32	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	105	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	54	8	43	42	5.5	9	5.1	25	25	1230	2300	
LMK20UU-TR LMK25UU-TR LMK30UU-TR	5	712	20	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	40	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	120	$\begin{matrix} 0 \\ -0.3 \end{matrix}$	62	8	51	50	5.5	9	5.1	25	25	1400	2700	LMK20-TR LMK25-TR LMK30-TR
	6	1111	25	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	45	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	167	$\begin{matrix} 0 \\ -0.3 \end{matrix}$	74	10	60	58	6.6	11	6.1	25	25	1550	3100	
	6	1490	30	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	52	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	184	$\begin{matrix} 0 \\ -0.3 \end{matrix}$	82	10	67	64	6.6	11	6.1	25	25	2490	5450	
LMK35UU-TR LMK40UU-TR	6	2410	35	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	60	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	200	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	96	13	78	75	9	14	8.1	30	30	2650	6270	LMK35-TR LMK40-TR
	6	2794	40	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	65	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	230	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	101	13	83	80	9	14	8.1	30	30	3430	8040	

LMH-UU-TR <Built-in Synthetics Resin Retainer>
合成树脂保持器



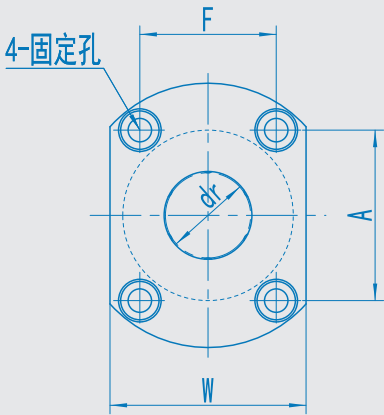
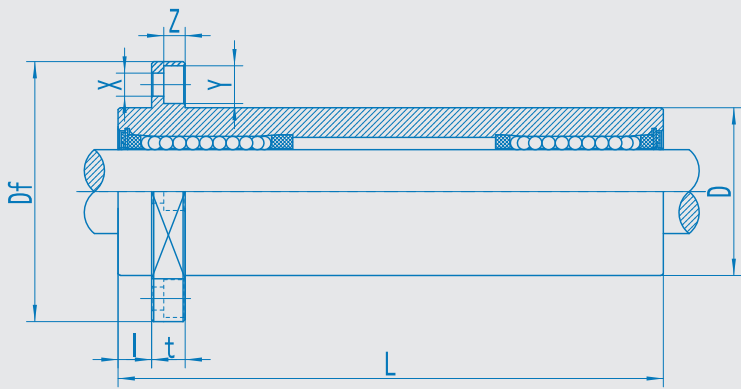
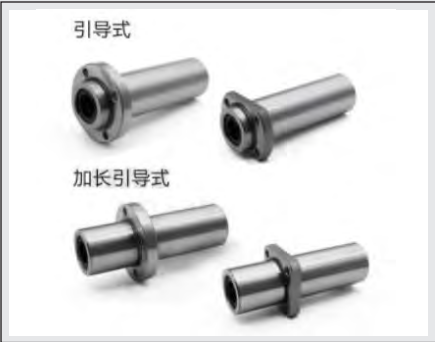
Nominal Part No			Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)								Eccentricity μ m	Eccentricity μ m	Basic Load Dynamic C(N)	Rating Static Co(N)	Nominal Part No.
Resin Retainer 合成树脂保持器	Ball Circuit	Weight g	dr Tolerance	D Tolerance	L Tolerance	Flange															
						Df	t	W	F	A	X	Y	Z								
LMH10UU-TR	4	415	10 ⁰ -0.012	23 ⁰ -0.016	82 ⁰ 	43	6	38	24	36	4.5	7.5	4.1	20	20	585	1100	LMH10-TR			
LMH12UU-TR	4		12 ⁰ 	26 ⁰ 	86 ⁰ 	46	6							4.5					7.5	4.1	20
LMH16UU-TR	4		16 ⁰ 0.015	32 ⁰ 	105 ⁰ 	54	8							5.5					9	5.1	25
LMH20UU-TR	5	722	20 ⁰ 	40 ⁰ -0.019	120 ⁰ 	62	8	46	32	40	5.5	9	5.1	25	25	1400	2700	LMH20-TR LMH25-TR LMH30-TR			
LMH25UU-TR	6	1153	25 ⁰ -0.018	45 ⁰ 	167 ⁰ -0.3	74	10	51	35	49	6.6	11	6.1	25	25	1550	3100				
LMH30UU-TR	6	1517	30 ⁰ 	52 ⁰ 	184 ⁰ 	82	10	58	38	55	6.6	11	6.1	25	25	2490	5450				
LMF35UU-TR	6	2445	35 ⁰ 	60 ⁰ 	200 ⁰ 	96	13	66	45	64	9	14	8.1	30	30	2650	6270	LMK35-TR LMK40-TR			
LMF40UU-TR	6	2821	40 ⁰ -0.021	65 ⁰ -0.022	230 ⁰ 	101	13	71	48	68	9	14	8.1	30	30	3430	8040				

LMF/K-UU-E-TR <Built-in Synthetics Resin Retainer>
合成树脂保持器



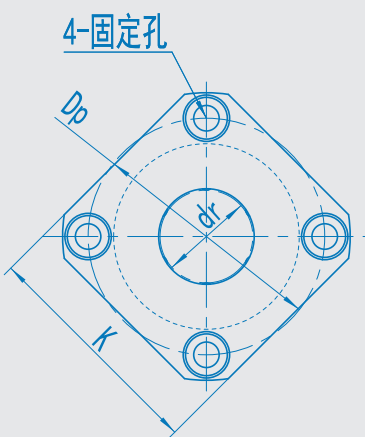
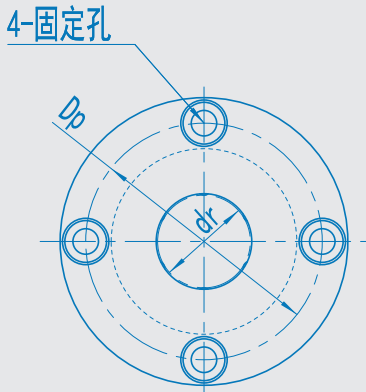
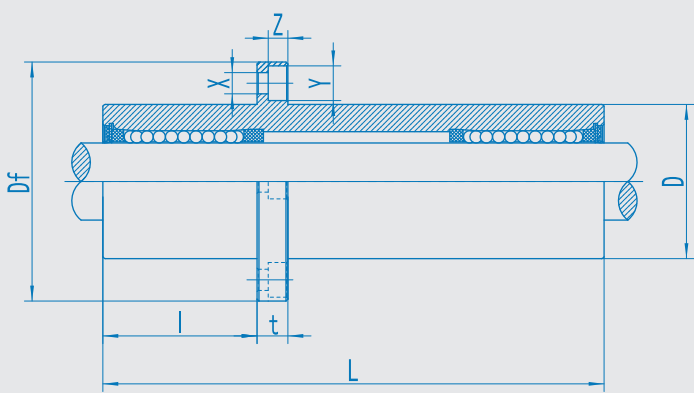
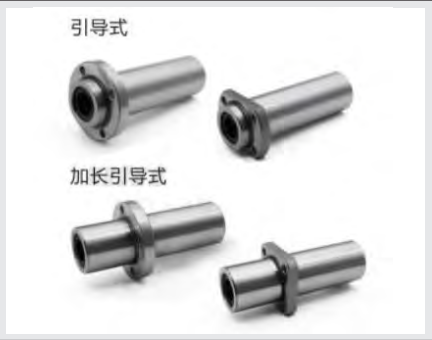
	Major Dimensions and Tolerance (mm)										Major Dimensions and Tolerance (mm)							Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
Resin Retainer 合成树脂保持器	dr Tolerance	D Tolerance	L Tolerance	Flange										dynamic C(N)	Static Co(N)								
				I	Df	K	t	Dp	X	Y	Z												
LMF/K10UU-E-TR LMF/K12UU-E-TR LMF/K16UU-E-TR	10 12 16	$\begin{matrix} 0 \\ -0.012 \\ 0 \\ -0.015 \end{matrix}$	23 26 32	$\begin{matrix} 0 \\ -0.016 \\ \\ \end{matrix}$	82 86 105		6 6 8	43 46 54	34 35 42	6 6 8	33 36 43	4.5 4.5 5.5	7.5 7.5 9	4.1 4.1 5.1	20 20 20	20 20 20	585 650 1230	1100 1200 2300	215/198 256/235 780/712	10 12 16			
	LMF/K20UU-E-TR LMF/K25UU-E-TR LMF/K30UU-E-TR	20 25 30	$\begin{matrix} \\ 0 \\ -0.018 \end{matrix}$	40 45 52	$\begin{matrix} 0 \\ -0.019 \\ \end{matrix}$	120 167 184	$\begin{matrix} \\ \\ \pm 0.3 \end{matrix}$	8 10 10	62 74 82	50 58 64	8 10 10	51 60 67	5.5 6.6 6.6	9 11 11	5.1 6.1 6.1	25 25 25	25 25 25	1400 1550 2490	2700 3100 5450	1226/1111 1581/1490 2585/2410	20 25 30		
		LMF/K35UU-E-TR LMF/K40UU-E-TR	35 40	$\begin{matrix} \\ 0 \\ -0.021 \end{matrix}$	60 65	$\begin{matrix} 0 \\ -0.022 \\ \end{matrix}$	200 230		13 13	96 101	75 80	13 13	78 83	9 9	14 14	8.1 8.1	30 30	30 30	2650 3430	6270 8040	2585/2410 2958/2794	35 40	

LMH-UU-E-TR <Built-in Synthetics Resin Retainer>
合成树脂保持器



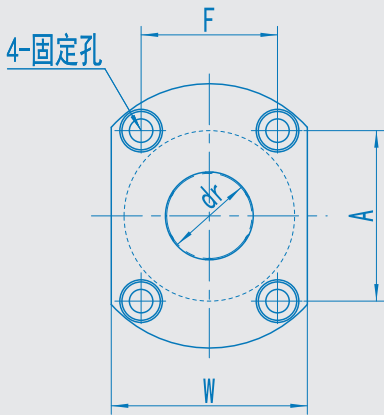
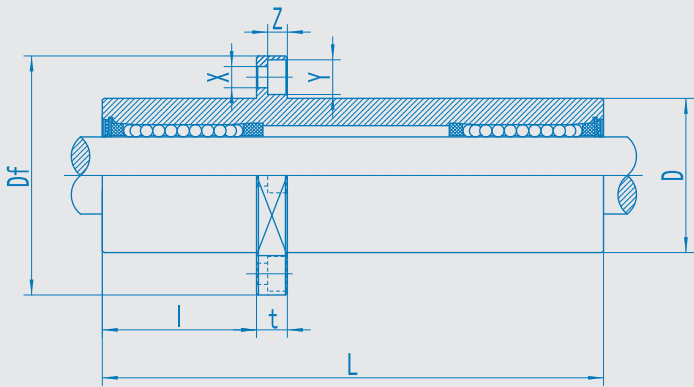
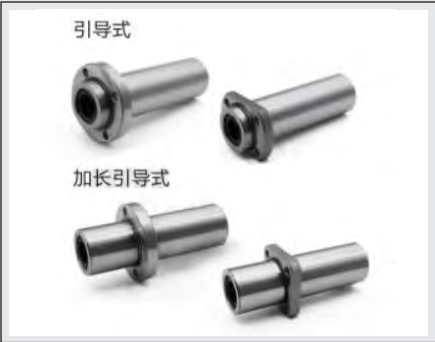
	Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
	dr	Tolerance	D	Tolerance	L	Tolerance	I	Df	W	t	F	A	X	Y	Z			dynamic C(N)	Static Co(N)		
Resin Retainer 合成树脂保持器																					
LMH10UU-E-TR	10	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	23	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	82		6	43	6				4.5	7.5	4.1	20	20	585	1100		10
LMH12UU-E-TR	12	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	26	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	86		6	46	6				4.5	7.5	4.1	20	20	650	1200		12
LMH16UU-E-TR	16	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	32	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	105		8	54	38	8	24	36	5.5	9	5.1	20	20	1230	2300	415	16
LMH20UU-E-TR	20	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	40	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	120		8	62	46	8	32	40	5.5	9	5.1	25	25	1400	2700	722	20
LMH25UU-E-TR	25	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	45	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	167	± 0.3	10	74	51	10	35	49	6.6	11	6.1	25	25	1550	3100	1153	25
LMH30UU-E-TR	30	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	52	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	184		10	82	58	10	38	55	6.6	11	6.1	25	25	2490	5450	1517	30
LMH35UU-E-TR	35	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	60	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	200		13	96	66	13	45	64	9	14	8.1	30	30	2650	6270	2445	35
LMH40UU-E-TR	40	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	65	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	230		13	101	71	13	48	68	9	14	8.1	30	30	3430	8040	2821	40

LMF/K-UU-SE-TR <Built-in Synthetics Resin Retainer> 合成树脂保持器



	Major Dimensions and Tolerance (mm)										Major Dimensions and Tolerance (mm)								Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
Resin Retainer 合成树脂保持器	dr	D	Tolerance	L	Tolerance	Flange								dynamic C(N)	Static Co(N)									
						I	Df	K	t	Dp	X	Y	Z											
LMF/K10UU-SE-TR LMF/K12UU-SE-TR LMF/K16UU-SE-TR	10	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	23	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	82		27	43	34	6	33	4.5	7.5	4.1	20	20	585	1100	215/198	10				
	12	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	26	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	86		28	46	35	6	36	4.5	7.5	4.1	20	20	650	1200	256/235	12				
	16	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	32	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	105		35	54	42	8	43	5.5	9	5.1	20	20	1230	2300	780/712	16				
LMF/K20UU-SE-TR LMF/K25UU-SE-TR LMF/K30UU-SE-TR	20	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	40	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	120		40	62	50	8	51	5.5	9	5.1	25	25	1400	2700	1226/1111	20				
	25	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	45	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	167	$\begin{matrix} 0 \\ \pm 0.3 \end{matrix}$	55	74	58	10	60	6.6	11	6.1	25	25	1550	3100	1581/1490	25				
	30	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	52	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	184		61	82	64	10	67	6.6	11	6.1	25	25	2490	5450	2585/2410	30				
LMF/K35UU-SE-TR LMF/K40UU-SE-TR	35	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	60	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	200		67	96	75	13	78	9	14	8.1	30	30	2650	6270	2585/2410	35				
	40	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	65	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	230		77	101	80	13	83	9	14	8.1	30	30	3430	8040	2958/2794	40				

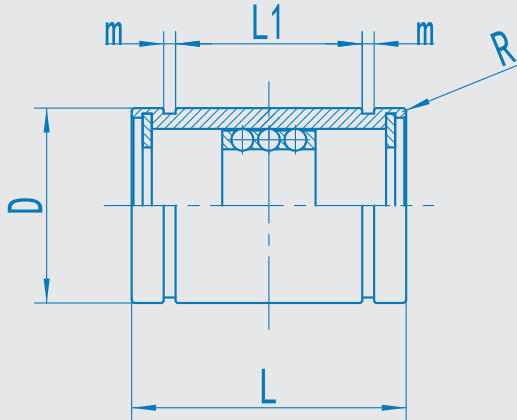
LMH-UU-SE-TR <Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Basic load rating		Weight g	Nominal shaft diameter mm
	dr	Tolerance	D	Tolerance	L	Tolerance	I	Df	W	t	F	A	X	Y	Z			dynamic C(N)	Static Co(N)		
Resin Retainer 合成树脂保持器																					
LMH10UU-SE-TR	10	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	23	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	82		27	43	6				4.5	7.5	4.1	20	20	585	1100		10
LMH12UU-SE-TR	12	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	26	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	86		28	46	6				4.5	7.5	4.1	20	20	650	1200		12
LMH16UU-SE-TR	16	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	32	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	105		35	54	38	8	24	36	5.5	9	5.1	20	20	1230	2300	415	16
LMH20UU-SE-TR	20	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	40	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	120		40	62	46	8	32	40	5.5	9	5.1	25	25	1400	2700	722	20
LMH25UU-SE-TR	25	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	45	$\begin{matrix} 0 \\ -0.019 \end{matrix}$	167	± 0.3	55	74	51	10	35	49	6.6	11	6.1	25	25	1550	3100	1153	25
LMH30UU-SE-TR	30	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	52	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	184		61	82	58	10	38	55	6.6	11	6.1	25	25	2490	5450	1517	30
LMH35UU-SE-TR	35	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	60	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	200		67	96	66	13	45	64	9	14	8.1	30	30	2650	6270	2445	35
LMH40UU-SE-TR	40	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	65	$\begin{matrix} 0 \\ -0.022 \end{matrix}$	230		77	101	71	13	48	68	9	14	8.1	30	30	3430	8040	2821	40

1N≒0.102kgf

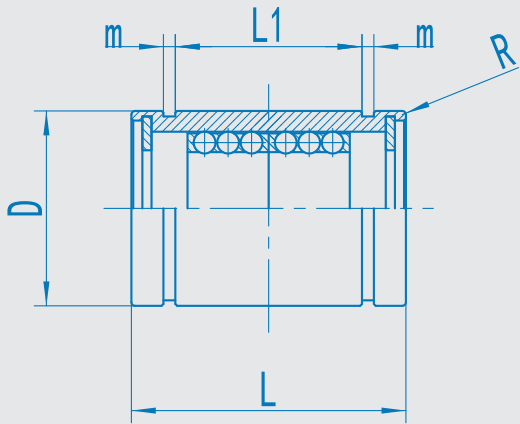
ST <Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)			Radial Clearance (max) μ m	Ball Circuit	Basic load rating		Weight	
	dr	D	L	Flange			L1	M			r	dynamic C(N)	Static Co(N)	g
	Tolerance	Tolerance	Tolerance											
ST5 ST6 ST8	$\begin{matrix} 0 \\ -0.008 \end{matrix}$	10 12 15	$\begin{matrix} 0 \\ -0.009 \\ 0 \\ -0.011 \end{matrix}$	15 19 24	$\begin{matrix} 0 \\ -0.12 \end{matrix}$	8 11.3 15.3	1.1 1.1 1.1	0.4 0.4 0.4	13 15 24	3 3 3	130 210 320	105 160 275	4 8 15	
	$\begin{matrix} 0 \\ -0.009 \end{matrix}$	19 21 28	$\begin{matrix} 0 \\ -0.013 \end{matrix}$	29 30 27	$\begin{matrix} 0 \\ -0.2 \end{matrix}$	19.4 20.4 23.3	1.3 1.3 1.6	0.4 0.8 0.8	30 32 40	3 3 3	495 720 1330	405 575 1025	30 32 72	
	ST20	$\begin{matrix} 0 \\ -0.010 \end{matrix}$	32	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	42		27.3	1.6	0.8	46	3	1605	1515	94

1N≒0.102kgf

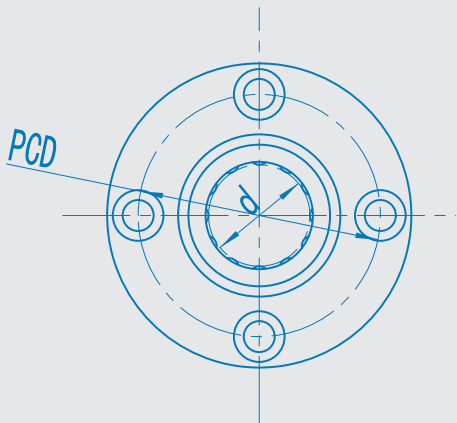
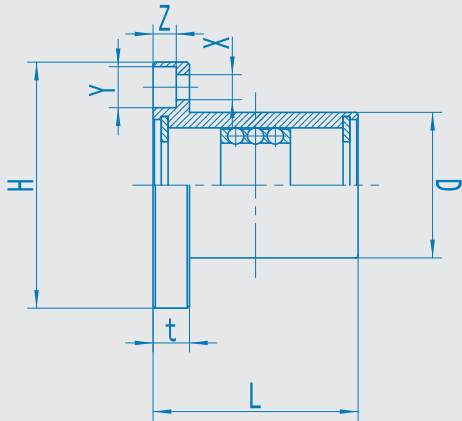
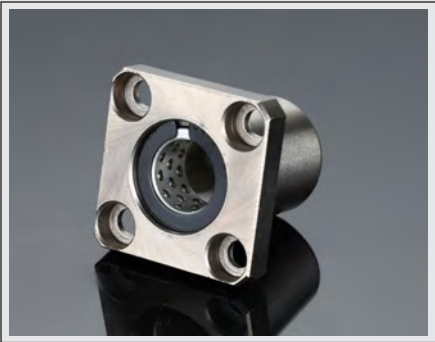
ST-L <Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)			Radial Clearance (max) μ m	Ball Circuit	Basic load rating		Weight	
	dr	D	L	Flange			L1	M			r	dynamic C(N)	Static Co(N)	g
	Tolerance	Tolerance	Tolerance											
ST5L ST6L ST8L	$\begin{matrix} 0 \\ -0.008 \end{matrix}$	$\begin{matrix} 10 \\ 12 \\ 15 \end{matrix}$	$\begin{matrix} 0 \\ -0.009 \\ 0 \\ -0.011 \end{matrix}$	$\begin{matrix} 15 \\ 19 \\ 24 \end{matrix}$	$\begin{matrix} 0 \\ -0.12 \end{matrix}$	$\begin{matrix} 8 \\ 11.3 \\ 15.3 \end{matrix}$	$\begin{matrix} 1.1 \\ 1.1 \\ 1.1 \end{matrix}$	$\begin{matrix} 0.4 \\ 0.4 \\ 0.4 \end{matrix}$	$\begin{matrix} 6 \\ 7 \\ 8 \end{matrix}$	$\begin{matrix} 6 \\ 6 \\ 6 \end{matrix}$	$\begin{matrix} 205 \\ 330 \\ 510 \end{matrix}$	$\begin{matrix} 210 \\ 325 \\ 555 \end{matrix}$	$\begin{matrix} 5 \\ 8 \\ 17 \end{matrix}$	
ST10L ST12L ST16L	$\begin{matrix} 0 \\ -0.009 \end{matrix}$	$\begin{matrix} 19 \\ 21 \\ 28 \end{matrix}$	$\begin{matrix} 0 \\ -0.013 \end{matrix}$	$\begin{matrix} 29 \\ 30 \\ 37 \end{matrix}$	$\begin{matrix} 0 \\ -0.2 \end{matrix}$	$\begin{matrix} 19.4 \\ 20.4 \\ 23.3 \end{matrix}$	$\begin{matrix} 1.3 \\ 1.3 \\ 1.6 \end{matrix}$	$\begin{matrix} 0.4 \\ 0.8 \\ 0.8 \end{matrix}$	$\begin{matrix} 8 \\ 8 \\ 16 \end{matrix}$	$\begin{matrix} 6 \\ 6 \\ 6 \end{matrix}$	$\begin{matrix} 790 \\ 1145 \\ 2110 \end{matrix}$	$\begin{matrix} 815 \\ 1155 \\ 2055 \end{matrix}$	$\begin{matrix} 33 \\ 36 \\ 79 \end{matrix}$	
ST20L	$\begin{matrix} 0 \\ -0.010 \end{matrix}$	32	$\begin{matrix} 0 \\ -0.016 \end{matrix}$	42		27,3	1.6	0.8	28	6	2550	3035	102	

1N≒0.102kgf

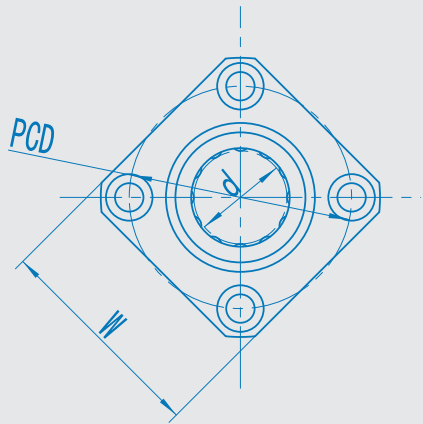
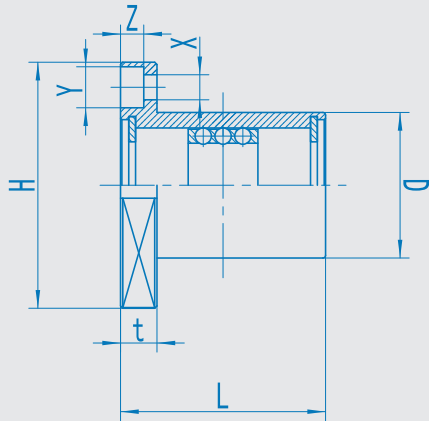
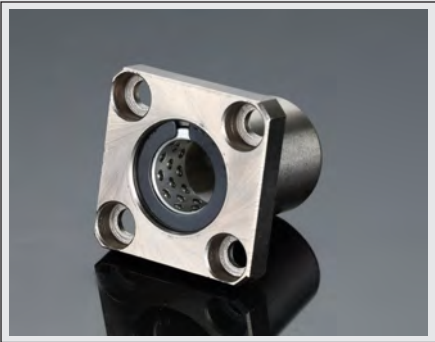
STF <Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Radial Clearance (max) μ m	Ball Circuit	Basic load rating		Weight g
	dr	D	L	Flange						dynamic C(N)	Static Co(N)								
	Tolerance	Tolerance	Tolerance	H	T	X	Y	Z	P. C. D										
STF6		12	0	19	28	5	3.5	6	3.1	20	0.012	0.012	15	3	210	160	23		
STF8	0	15	-0.013	24	32	5	3.5	6	3.1	24	0.012	0.012	24	3	320	275	41		
STF10	-0.009	19		29	40	6	4.5	7.5	4.1	29	0.012	0.012	30	3	495	405	71		
STF12		21	0	30	42	6	4.5	7.5	4.1	32	0.012	0.012	32	3	720	575	67		
STF16		28	-0.016	37	48	6	4.5	7.5	4.1	38	0.012	0.012	40	3	1330	1025	119		
STF20	0	32	0	42	54	8	5.5	9	5.1	43	0.015	0.015	46	3	1605	1515	176		
	-0.010		-0.019																

1N≒0.102kgf

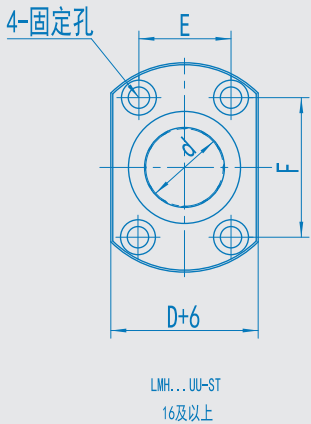
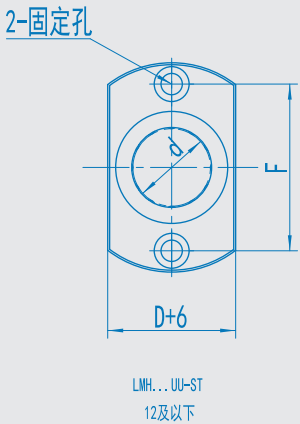
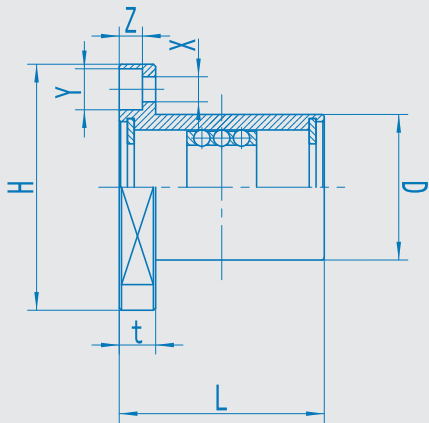
STK <Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Radial Clearance (max) μ m	Ball Circuit	Basic load rating		Weight g
	dr	D	L	Flange								dynamic C(N)					Static Co(N)		
	Tolerance	Tolerance	Tolerance	H	W	T	X	Y	Z	P. C. D									
STK6		12	0	19		28	22	5	3.5	6	3.1	20	0.012	0.012	15	3	210	160	17
STK8	0	15	-0.013	24		32	25	5	3.5	6	3.1	24	0.012	0.012	24	3	320	275	33
STK10	-0.009	19		29	0 ±0.3	40	30	6	4.5	7.5	4.1	29	0.012	0.012	30	3	495	405	51
STK12		21	0	30		42	32	6	4.5	7.5	4.1	32	0.012	0.012	32	3	720	575	48
STK16		28	-0.016	37		48	37	6	4.5	7.5	4.1	38	0.012	0.012	40	3	1330	1025	103
STK20	0	32	0	42		54	42	8	5.5	9	5.1	43	0.015	0.015	46	3	1605	1515	141
	-0.010		-0.019																

1N≒0.102kgf

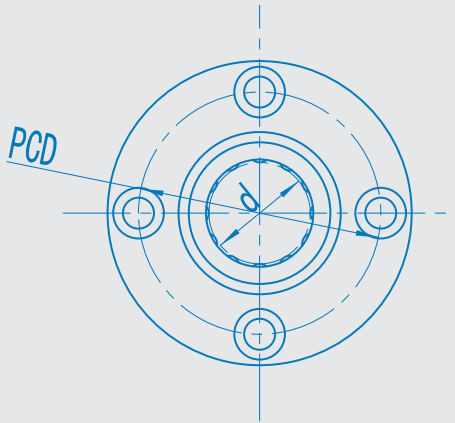
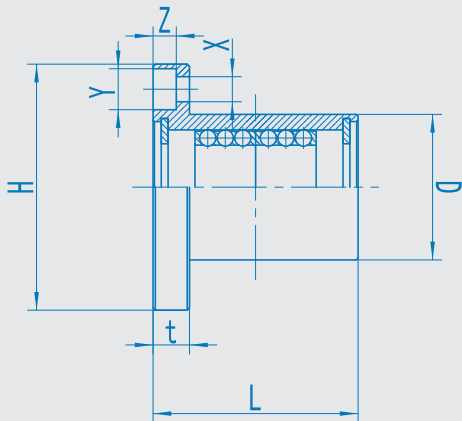
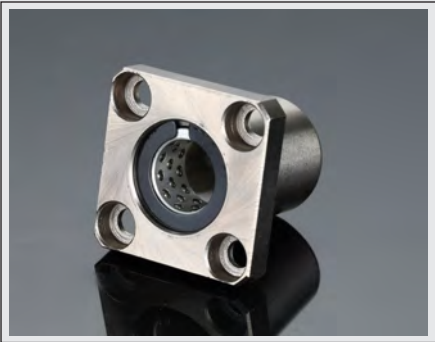
STH<Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Radial Clearance (max) μ m	Ball Circuit	Basic load rating		Weight g
	dr	D	L	Flange										dynamic C(N)	Static Co(N)								
	Tolerance	Tolerance	Tolerance	H	W	T	X	Y	Z	P. C.	D	E	F										
STH6		12	0	28	18	5	3.5	6	3.1	20			20	0.012	0.012	15	3	210	160	20			
STH8	0	15	-0.013	32	21	5	3.5	6	3.1	24			24	0.012	0.012	24	3	320	275	37			
STH10	-0.009	19		40	25	6	4.5	7.5	4.1	29			29	0.012	0.012	30	3	495	405	63			
STH12		21	0	42	27	6	4.5	7.5	4.1	32			32	0.012	0.012	32	3	720	575	59			
STH16	0	28	-0.016	48	34	6	4.5	7.5	4.1	38	22		31	0.012	0.012	40	3	1330	1025	111			
STH20	-0.010	32	0	54	38	8	5.5	9	5.1	43	24		36	0.015	0.015	46	3	1605	1515	163			

1N≒0.102kgf

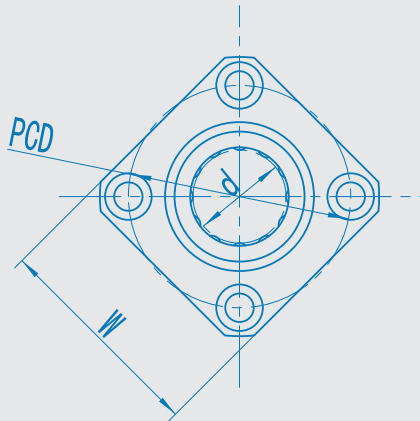
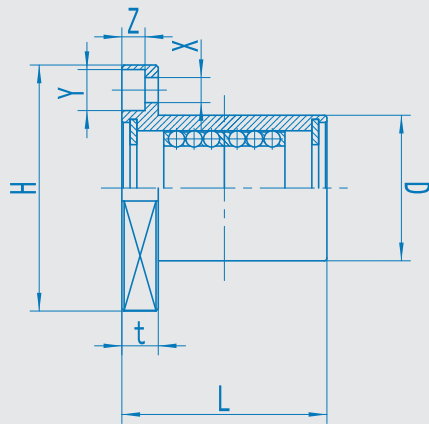
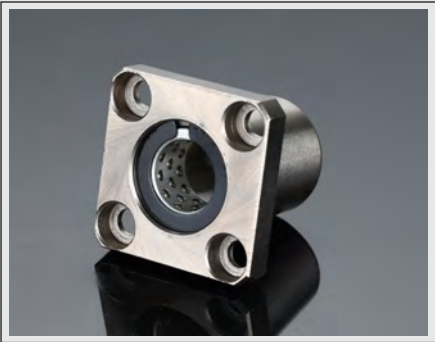
STF-L<Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Radial Clearance (max) μ m	Ball Circuit	Basic load rating		Weight g
	dr	D	L	Flange						dynamic C(N)	Static Co(N)								
	Tolerance	Tolerance	Tolerance	H	T	X	Y	Z	P. C. D										
STF6L		12	0	19	28	5	3.5	6	3.1	20	0.012	0.012	7	6	330	325	24		
STF8L	0	15	-0.013	24	32	5	3.5	6	3.1	24	0.012	0.012	8	6	510	555	43		
STF10L	-0.009	19		29	40	6	4.5	7.5	4.1	29	0.012	0.012	8	6	790	815	74		
STF12L		21	0	30	42	6	4.5	7.5	4.1	32	0.012	0.012	8	6	1145	1155	71		
STF16L		28	-0.016	37	48	6	4.5	7.5	4.1	38	0.012	0.012	16	6	2110	2055	126		
STF20L	0	32	0	42	54	8	5.5	9	5.1	43	0.015	0.015	28	6	2550	3035	184		
	-0.010		-0.019																

1N≒0.102kgf

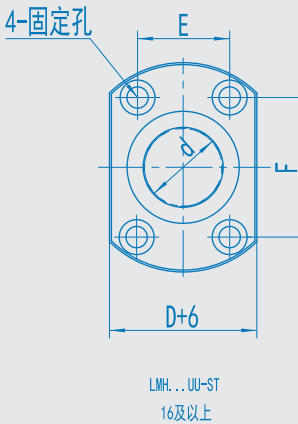
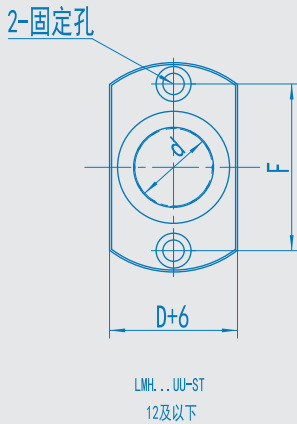
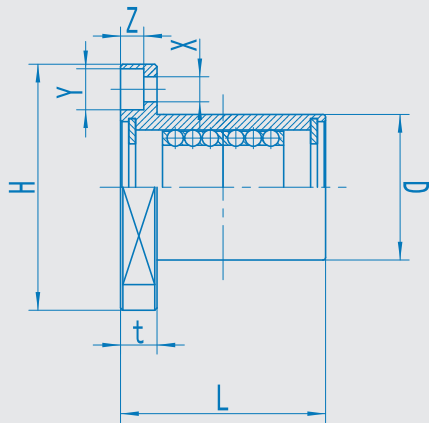
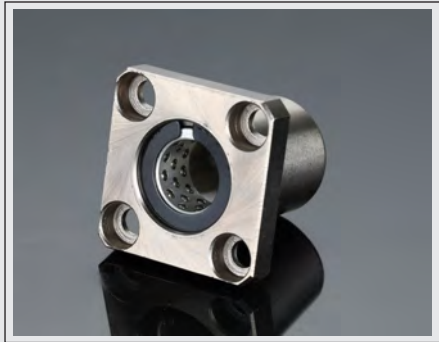
STK-L<Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)						Major Dimensions and Tolerance (mm)						Eccentricity μ m	Squareness μ m	Radial Clearance (max) μ m	Ball Circuit	Basic load rating		Weight g
	dr Tolerance	D Tolerance	L Tolerance	Flange								dynamic C(N)					Static Co(N)		
				H	W	T	X	Y	Z	P. C. D									
STK6L		12	0	19	28	22	5	3.5	6	3.1	20	0.012	0.012	7	6	330	325	18	
STK8L	0	15	-0.013	24	32	25	5	3.5	6	3.1	24	0.012	0.012	8	6	510	555	35	
STK10L	-0.009	19		29	40	30	6	4.5	7.5	4.1	29	0.012	0.012	8	6	790	815	54	
			0																
STK12L		21	-0.016	30	42	32	6	4.5	7.5	4.1	32	0.012	0.012	8	6	1145	1155	52	
STK16L		28		37	48	37	6	4.5	7.5	4.1	38	0.012	0.012	16	6	2110	2055	110	
STK20L	0	32	0	42	54	42	8	5.5	9	5.1	43	0.015	0.015	28	6	2550	3035	149	
	-0.010		-0.019																

1N $\equiv$ 0.102kgf

STH-L <Built-in Synthetics Resin Retainer>
合成树脂保持器



	Major Dimensions and Tolerance (mm)					Major Dimensions and Tolerance (mm)										Eccentricity μ m	Squareness μ m	Radial Clearance (max) μ m	Ball Circuit	Basic load rating		Weight g
	dr	D	L	Flange										dynamic C(N)	Static Co(N)							
	Tolerance	Tolerance	Tolerance	H	W	T	X	Y	Z	P. C. D	E	F										
STH6L		12	0	19	28	18	5	3.5	6	3.1	20	20	0.012	0.012	7	6	330	325	21			
STH8L	0	15	-0.013	24	32	21	5	3.5	6	3.1	24	24	0.012	0.012	8	6	510	555	39			
STH10L	-0.009	19		29	40	25	6	4.5	7.5	4.1	29	29	0.012	0.012	8	6	790	815	66			
STH12L		21	0	30	42	27	6	4.5	7.5	4.1	32	32	0.012	0.012	8	6	1145	1155	63			
STH16L		28	-0.016	37	48	34	6	4.5	7.5	4.1	38	22	0.012	0.012	16	6	2110	2055	118			
STH20L	0	32	0	42	54	38	8	5.5	9	5.1	43	24	0.015	0.015	28	6	2550	3035	171			
	-0.010		-0.019																			

1N $\approx$ 0.102kgf

<IN 'S Linear Ball Bearing System> <Super Linear Ball Bearing>

IN'S offers Super Linear Ball Bushing as a new standard in linear motion bearings. This Super Linear Ball Bushing has 3 times load rating and 27 times travel life of conventional linear bushings. Also, IN'S Super Linear Ball Bushing offers Alignment which can give you less installation time and can prolong the travel life by reducing the friction between the shaft and balls. Super Linear Ball Bushing is designed to meet any customer's demands such as factory automation equipments, industrial machines, electrical equipments, measuring instruments, and etc. IN'S Super Linear Ball Bushing will give you the benefit of total cost reduction and improvement of your machine performance.



IN'S®

<IN 'S Linear Ball Bearing System> <Super Linear Ball Bearing>

Super Linear Ball Bushing Features

Higher Load Ratings

Uniquely designed ball plate is made by hardened steel, and the precisely ground groove is slightly larger than the ball size which provides greater contact area between the ball and the ball plate. And, this design provides 3 times higher load ratings of the conventional linear bushing.

Self Alignment

Ball plate has a convex shape to provide a pivot point at the center which allows self alignment up to 0.5°. This self alignment capability eliminates any possibility of edge pressure caused by inaccurate machining, errors on mounting, or shaft deflection.

Longer Travel Life

KBS Super Linear Ball Bushing offer three times the load rating or 27 times travel life of conventional linear bushing.

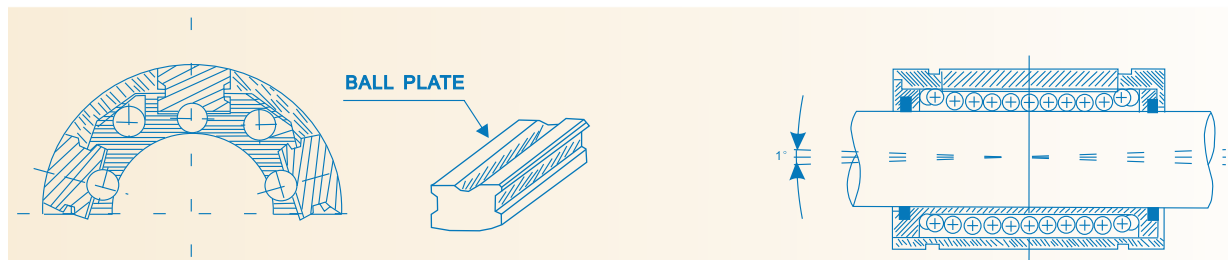


Fig.20. Cross-section of Super Linear Ball Bushing

Smooth And Silent Motion

Super Linear Ball Bushing has extremely smooth motion due to the uniquely designed ball retainer and the outer sleeve. They are made of engineering polymer, which has light weight, low friction, and high wear-resistance. Due to them, smooth and silent motion can be obtained.

Clearance Adjustment

Super Linear Ball Bushing's ball plates are designed to float in the outer sleeve. This allows the clearance between the balls and shaft to be adjusted for the best application environment by using with the Clearance Adjustable housing.

Interchangeability

Super Linear Ball Bushing is designed to be fully Interchangeable with conventional linear bushing.

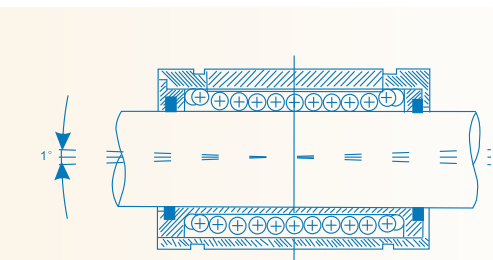


Fig.21. Super Linear Ball Bushing's self-alignment feature

Cost Effectiveness

Lower Cost

Self alignment feature can compensate the in accurate machining of the base, so less installation time and lower cost can be obtained.

Higher Load Rating And Longer Travel Life

Compared to the same size conventional linear bushing, Super Linear Ball Bushing offers higher load rating and longer travel life.

Reduction of Material Cost

Super Linear Ball Bushing's higher load rating enables the use of smaller components, and reducing material cost.

Energy Saving

Super Linear Ball Bushing is designed to be light weight, lower inertia, and low friction, So it enables the moving parts to have rapid motion with lower driving power.

Super Linear Ball Bushing



Standard type (not Sealed)

Floating ball plate features offer self alignment and clearance adjustment, and light weight retainer and outer sleeve offers silent operation.



Open Type

One ball circuit is removed from the outer sleeve to be used with bottom supported shaft for deflection free movement. This open type Super Linear Ball Bushing also has self alignment and clearance adjustment.

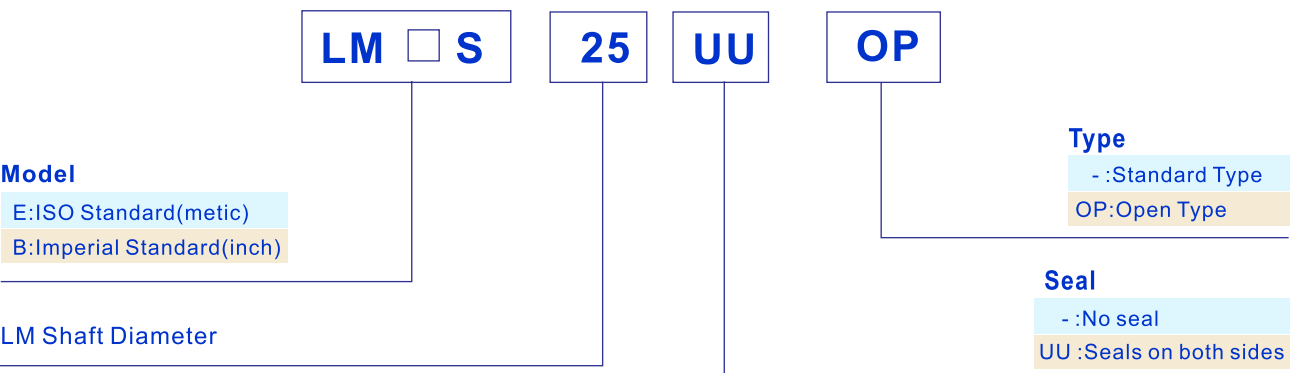


Standard type (Sealed)

Specially designed integral wiper seals create a free floating action in the outer sleeve. It provides perfect sealing ability during self aligning operation.

Part Number Notation

Super Linear Ball Bushing's part number notation is as follows:



Load Ratings and Travel Life

Super Linear Ball Bushing's load ratings give an influence to travel life with load direction, ball circuit orientation, and hardness of the shaft.

Basic Dynamic Load Rating (C) and Travel life

The travel life of a Super Linear Ball Bushing is determined largely by the quality of the shaft. The basic dynamic load rating is maximum continuous load that can be applied to the Super Linear Ball Bushing with 90% of reliability achieving after 50km operation under normal conditions. The nominal travel life can be calculated by following equation.

$$L = \left(\frac{C}{P} \right)^3 \times 50 \quad L_{100} = \left(\frac{C_{100}}{P} \right)^3 \times 100$$

L : Nominal life of 50km (km)
L₁₀₀: Nominal life of 100km (km)
C : Basic dynamic load rating of 50km (N)
C₁₀₀: Basic dynamic load rating of 100km (N)
P : Applied load (N)

Practically, other factors will affect life as follows:

$$L = \left(\frac{f_H}{f_W} \times \frac{C}{P} \right)^3 \times 50 \quad L = \left(\frac{f_H}{f_W} \times \frac{C_{100}}{P} \right)^3 \times 100$$

f_H: Hardness factor (See Fig.1)
f_W: Load factor (See Table 3)

From the above equations, when the stroke and frequency are constant, the travel life can be calculated by following equation:

$$L_h = \frac{L}{2 \times L_s \times N_r \times 60}$$

L_h: Travel life (hr)
L_s: Stroke (km)
N_r: Number of strokes per minute (cpm)

Calculation example:

The Maximum applied load and the travel life are the most important factor for choosing a proper size of Super Linear Ball Bushing. Belows are the sample calculation of the expecting travel life and choosing a proper size of Super Linear Ball Bushing.

— Working conditions —

- Applied load: 250N (P)
- Stroke : 0.250m (L_s)
- Number of strokes per minute : 60 (N_r)
- Shaft hardness : HRC 60 (f_H=1.0)
- Operating speed :

$$V = 2 \times L_s \times N_r \\ = 2 \times 0.250 \times 60 \\ = 30\text{m/min} \quad (f_W = 1.6)$$

other factors (f_c, f_T) are considered as 1.0

Calculation of expected travel life:

Assuming the basic dynamic load rating is based on travel life of 50km and all other factors are 1.0, you choose the Super Linear Ball Bushing size that you can expect travel life. Let's try LMES20UU with the above working conditions.

$$L = \left(\frac{1.0 \times 1.0 \times 1.0}{1.6} \times \frac{2,580}{250} \right)^3 \times 50 \\ \approx 13,417\text{km} \\ L_h = \frac{13,417 \times 10^3}{2 \times 0.250 \times 60 \times 60} \\ \approx 7,454 \text{ hours}$$

Choosing a proper Super Linear Ball Bushing

Let's assume our design travel life is 15,000 hours:

$$L = 15,000 \times 2 \times 0.250 \times 10^{-3} \times 60 \times 60 = 27,000\text{km} \\ L = \frac{250 \times 1.6}{1.0 \times 1.0 \times 1.0} \times \sqrt[3]{\frac{27,000}{50}} \\ = 3,257\text{N}$$

So, the proper Super Linear Ball Bushing for above condition is LMES25UU which has 3,800N as the basic dynamic load rating.

Housing and Shaft

To optimize the performance of the KBS Super Linear Ball Bushing, high precision shaft and housing are required.

Housing

For Super Linear Ball Bushing's application, housing is required, and the tolerance of housing bore will affect the life and the accuracy of application. See Table 9 and 10.

Shaft

Because the balls in KBS Super Linear Ball Bushing as rolling elements are running directly on the shaft surface, the hardness, surface finishing, and tolerance of shaft will largely affect the travelling performance of Super Linear Ball Bushing.

The shaft must have following conditions:

1) Hardness

The hardness must be HRC 58 to 64.
The shaft hardness below HRC 58 will lead decreasing of travel life and permissible load.

2) Surface Finishing

The Surface finishing must be 1.6S or better for the smooth operation.

3) Tolerance

The correct tolerance of the shaft diameter is recommended as shown on Table 9 and Table 10.

Fitting

Recommended fittings between Super Linear Ball Bushing and shaft are shown in Table 9 and Table 10.
Please note when the housing bore tolerance is H7, there are tight fit at the both ends of outer sleeve of metric type.

Table 9 Recommended toleranced between shaft and housing (ISO Standard)

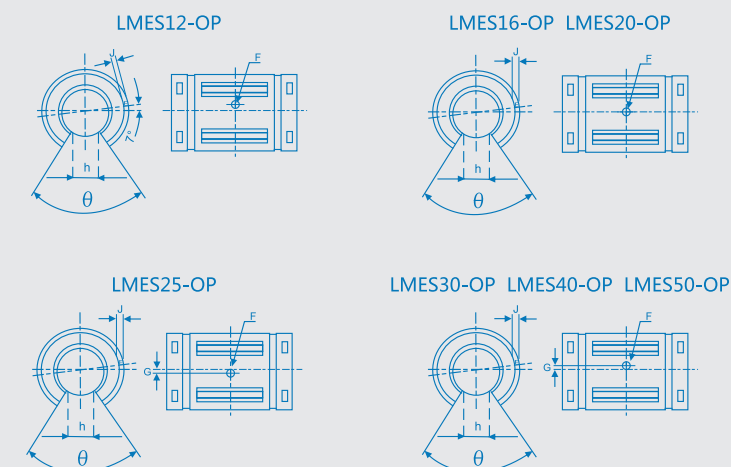
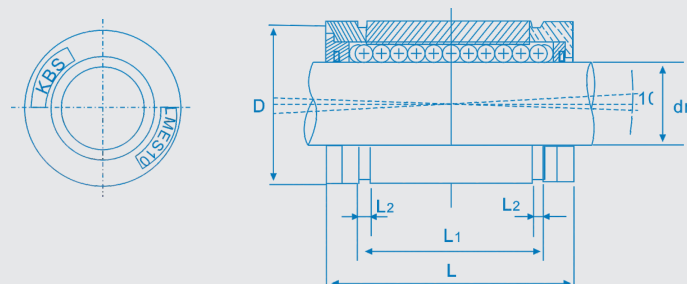
Part Number	shaft		Housing	
	Shaft Dia. d(mm)	Tol.(h6) μm	Housing Bore D(mm)	Tol.(H7) μm
LMES10	10	0 -9	19	+21 0
LMES12	12	0 -11	22	
LMES16	16		26	
LMES20	20	0 -13	32	+25 0
LMES25	25		40	
LMES30	30		47	
LMES40	40	0 -16	62	+30 0
LMES50	50		75	

Table 10 Recommended toleranced between shaft and housing (Imperial Standard)

unit: inch

Part Number	shaft		Housing	
	Shaft Dia.	Tol.(g6)	Housing Bore	Tol.(h7)
LMBS4	.2500	-.0002 to -.0006	.5000	0 to +.0007
LMBS6	.3750	-.0002 to -.0006	.6250	0 to +.0007
LMBS8	.5000	-.0002 to -.0007	.8750	0 to +.0008
LMBS10	.6250	-.0002 to -.0007	1.1250	0 to +.0008
LMBS12	.7500	-.0003 to -.0008	1.2500	0 to +.0010
LMBS16	1.0000	-.0003 to -.0008	1.5625	0 to +.0010
LMBS20	1.2500	-.0004 to -.0010	2.0000	0 to +.0012
LMBS24	1.5000	-.0004 to -.0010	2.3750	0 to +.0012
LMBS32	2.0000	-.0004 to -.0012	3.0000	0 to +.0012

LMES Series



Shaft Dia. (mm)	Standard Type				Dimensions (mm)				Diametral Clearance		Basic Load Ratings	
	Part number		No. of Ball circuit	Wgt. (g)	D ¹⁾	L ±0.2	L1 ±0.2	L2 min	dr (mm)	Tol. (μm)	Dynamic C (N)	Static Co (N)
	w/o seal	with seal										
10	LMES 10	LMES 10UU	5	17	19	29	21.7	1.35	10	+8 0	750	935
12	LMES 12	LMES 12UU	5	23	22	32	22.7	1.35	12		1020	1290
16	LMES 16	LMES 16UU	5	28	26	36	24.7	1.35	16	+9 1	1250	1550
20	LMES 20	LMES 20UU	6	61	32	45	31.3	1.65	20		2090	2630
25	LMES 25	LMES 25UU	6	122	40	58	43.8	1.90	25	+11 1	3780	4720
30	LMES 30	LMES 30UU	6	185	47	68	51.8	1.90	30		5470	6810
40	LMES 40	LMES 40UU	6	360	62	80	60.4	2.20	40	+13 2	6590	8230
50	LMES 50	LMES 50UU	6	580	75	100	77.4	2.70	50		10800	13500

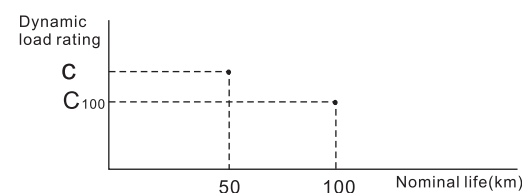
¹⁾Based on nominal housing bore

note) Reference of dynamic load rating

Dynamic load rating is based on the nominal life of 50km. In case of 100km, C on the table need to be divided by 1.26.

ex) LME20 C: 2,580N C₁₀₀: 2,040N

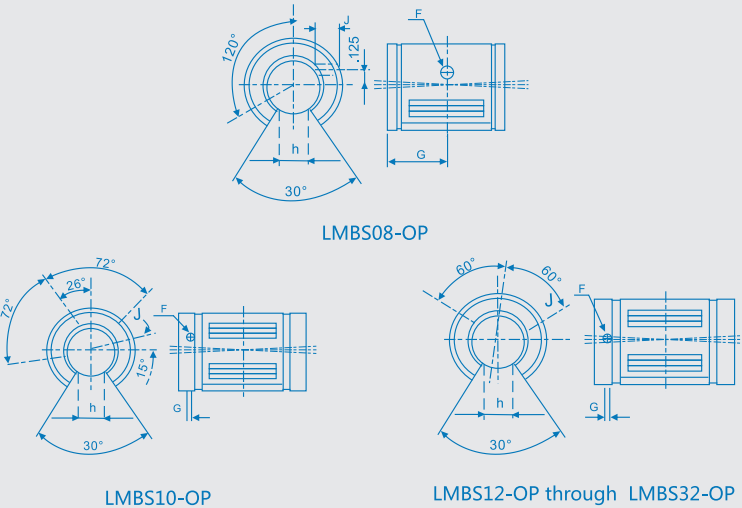
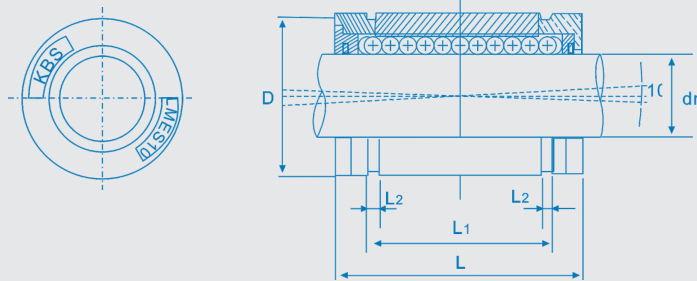
$$L = \left(\frac{C}{P}\right)^3 \times 50\text{km} \quad L = \left(\frac{C_{100}}{P}\right)^3 \times 100\text{km}$$



Shaft Dia. (mm)	Open Type				Dimensions (mm)							Basic Load Ratings		
	Part number		No. of Ball circuit	Wgt. (g)	D ¹⁾	L ±0.2	L ₂	h	θ (°)	F	G	J	Dynamic C (N)	Static Co (N)
	w/o seal	with seal												
12	LMES 12OP	LMES 12UUOP	4	18	22	32	1.35	6.5	66	3.0	—	0.7	1020	1290
16	LMES 16OP	LMES 16UUOP	4	22	26	36	1.35	9	68		—	0.7	1250	1550
20	LMES 20OP	LMES 20UUOP	5	51	32	45	1.65	9	55		—	0.9	2090	2630
25	LMES 25OP	LMES 25UUOP	5	102	40	58	1.90	11.5	57		1.5	1.4	3780	4720
30	LMES 30OP	LMES 30UUOP	5	155	47	68	1.90	14	57		2.0	2.2	5470	6810
40	LMES 40OP	LMES 40UUOP	5	300	62	80	2.20	19.5	56		1.5	2.7	6590	8230
50	LMES 50OP	LMES 50UUOP	5	480	75	100	2.70	22.5	54		2.5	2.3	10800	13500

1N=0.102kgf

LMBS Series



Shaft Dia. (inch)	Standard Type				Dimensions (inch)						Basic Load Ratings	
	Part number		No.of Ball circuit	Wgt. (lbf)	Working Bore Diameter		D ¹⁾	L	L ₁	L ₂ min	Dynamic C (lbf)	Static Co (lbf)
	w/o seal	with seal			dr	Tol.						
1 / 4	LMBS 4	LMBS 4UU	4	0.01	0.2500	0 -0.0005	0.5000	0.750/0.735	0.511/0.501	0.039	60	80
3 / 8	LMBS 6	LMBS 6UU	4	0.02	0.3750		0.6250	0.875/0.860	0.699/0.689	0.039	95	120
1 / 2	LMBS 8	LMBS 8UU	4	0.05	0.5000		0.8750	1.250/1.230	1.032/1.012	0.050	230	290
5 / 8	LMBS 10	LMBS 10UU	5	0.08	0.6250		1.1250	1.500/1.480	1.105/1.095	0.056	400	500
3 / 4	LMBS 12	LMBS 12UU	6	0.14	0.7500		1.2500	1.625/1.605	1.270/1.250	0.056	470	590
1	LMBS 16	LMBS 16UU	6	0.29	1.0000	0 -0.0006	1.5625	2.250/2.230	1.884/1.864	0.070	850	1060
1-1 / 4	LMBS 20	LMBS 20UU	6	0.40	1.2500		2.0000	2.625/2.600	2.004/1.984	0.068	1230	1530
1-1 / 2	LMBS 24	LMBS 24UU	6	0.80	1.5000		2.3750	3.000/2.970	2.410/2.390	0.086	1480	1850
2	LMBS 32	LMBS 32UU	6	1.38	2.0000		3.0000	4.000/3.960	3.193/3.163	0.105	2430	3040

¹⁾Based on nominal housing bore

Shaft Dia. (inch)	Open Type				Dimensions (inch)								Basic Load Ratings	
	Part number		No.of Ball circuit	Wgt. (lbf)	D ¹⁾	L	F	G	J	L ₂ (min)	h	Dynamic C (lbf)	Static Co (lbf)	
	w/o seal	with seal												
1 / 2	LMBS 8OP	LMBS 8UUOP	3	0.03	0.8750	1.250/1.230	0.14	0.63	Thru	0.050	0.32	230	290	
5 / 8	LMBS 10OP	LMBS 10UUOP	4	0.06	1.1250	1.500/1.480	0.11	0.13	0.039	0.056	0.38	400	500	
3 / 4	LMBS 12OP	LMBS 12UUOP	5	0.11	1.2500	1.625/1.605	0.14	0.13	0.059	0.056	0.43	470	590	
1	LMBS 16OP	LMBS 16UUOP	5	0.21	1.5625	2.250/2.230	0.14	0.13	0.047	0.070	0.56	850	1060	
1-1 / 4	LMBS 20OP	LMBS 20UUOP	5	0.35	2.0000	2.625/2.600	0.20	0.19	0.090	0.068	0.63	1230	1530	
1-1 / 2	LMBS 24OP	LMBS 24UUOP	5	0.67	2.3750	3.000/2.970	0.20	0.19	0.090	0.086	0.75	1480	1850	
2	LMBS 32OP	LMBS 32UUOP	5	1.10	3.0000	4.000/3.960	0.27	0.31	Thru	0.105	1.00	2430	3040	

¹⁾Based on nominal housing bore

<IN 'S Linear Ball Bearing System>

<IN 'S Case Unit>



KBS offer various types Linear Bushing Case Units for designing of linear motion systems. Precisely machined Aluminum Cases are standardized for providing interchangeability, less cost and less designing time.

Case Unit

The case is compact and light weight, and the standard type Linear Bushing is assembled inside.

SC (E) type

Standard type Aluminum Case Unit.
Simple mounting with mounting bolt to the table.

SC(E)□V type

Short type Aluminum Case Unit with a standard type Linear Bushing.
More compact design than SC(E) type is available.

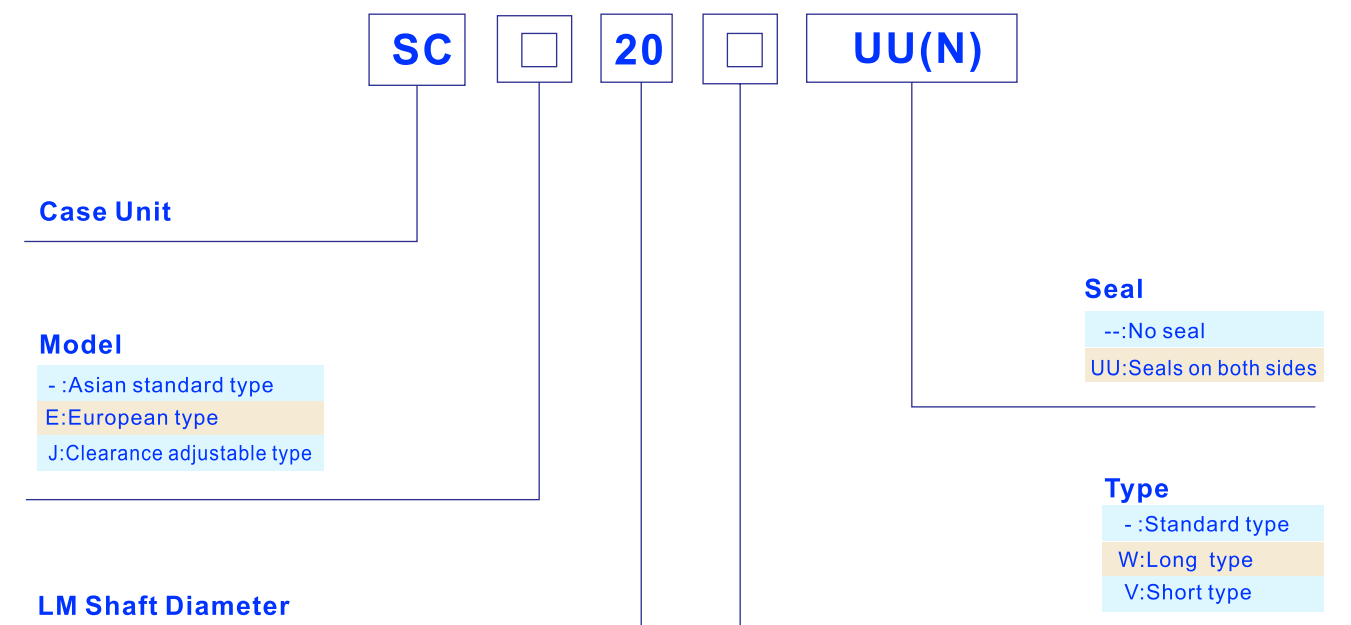
SC(E)□W type

Assembled with double standard type Linear Bushing in a long Aluminum Case.

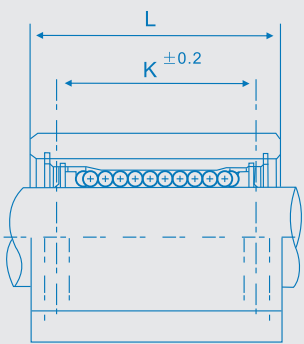
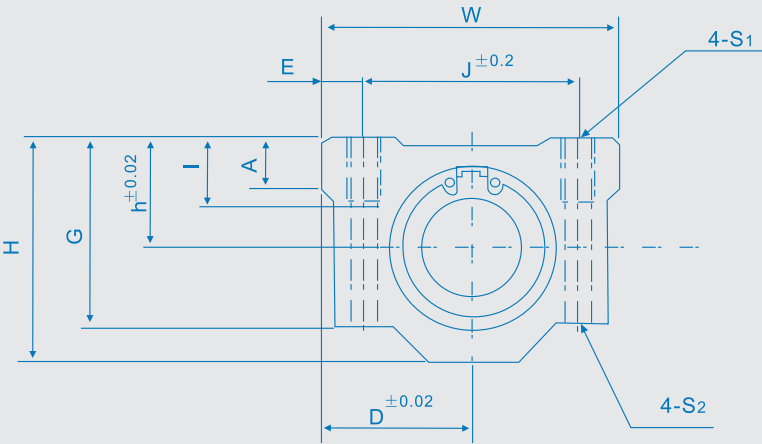
SCJ type

Clearance adjustable type Aluminum Case Unit by slotting in axial direction.
If high precise positioning is required, SCJ type can minimize the effect of clearance between shaft and Case Unit.

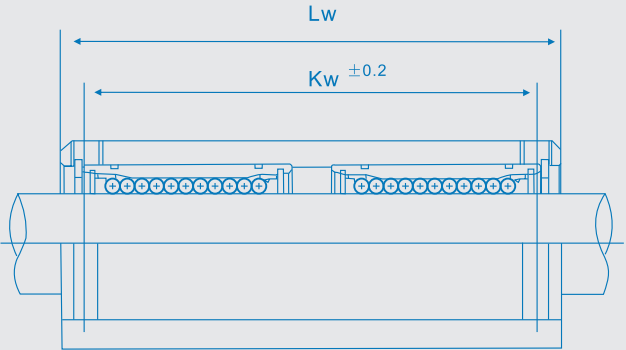
Part Number Notation



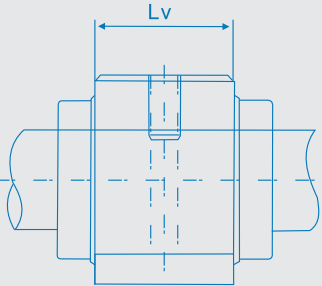
SC Series



SC□N



SC□WN

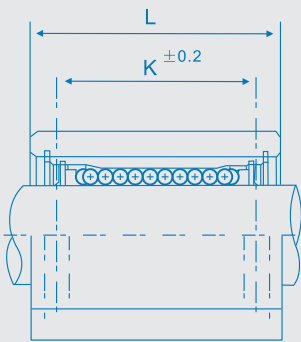
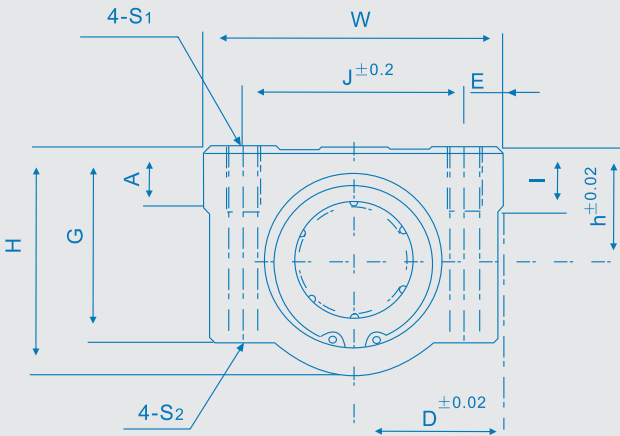


SC□VN

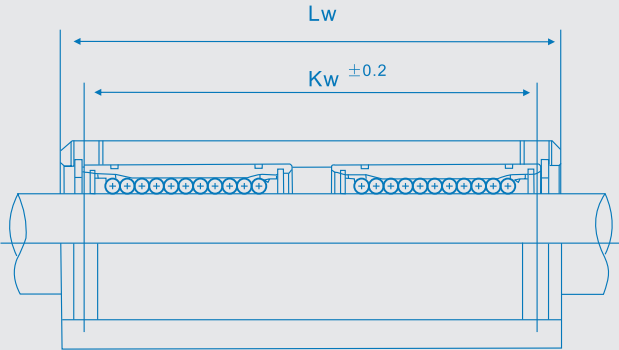
Standard Type					Long Type				Short Type				Dimensions(mm)															Part Number				
Part Number	Installed L/B	Load Ratings		Wgt. (g)	Part Number	Installed L/B	Load Ratings		Wgt. (g)	Part Number	Installed L/B	Load Ratings		Wgt. (g)	Shaft Dia.	Common										SC			SC□W		SC□V	
		C (N)	Co (N)				C (N)	Co (N)				C (N)	Co (N)			h	D	W	H	G	A	J	E	S1×I	S2	K	L		Kw	Lw	Lv	
SC6UUN	LM6UU														φ 6	9±0.02	15±0.02	30	18	15	6	20	5	M4×8	Φ3.4	15	25					
SC8UUN	LM8UU	274	392	52	SC8WUUN	2×LM8UU	431	784	102	SC8VUUN	LM8UU	260	400	36		φ 8	11	17	34	22	18	6	24	5	M4×8	Φ3.4	18	30	42	58	15.4	SC8UUN
SC10UUN	LM10UU	372	549	92	SC10WUUN	2×LM10UU	588	1100	180	SC10VUUN	LM10UU	370	540	63		φ 10	13	20	40	26	21	8	28	6	M5×12	Φ4.3	21	35	46	68	19.5	SC10UUN
SC12UUN	LM12UU	510	784	102	SC12WUUN	2×LM12UU	813	1570	205	SC12VUUN	LM12UU	410	590	74		φ 12	15	21	42	28	24	8	30.5	5.75	M5×12	Φ4.3	26	36	50	70	20.5	SC12UUN
SC13UUN	LM13UU	510	784	120	SC13WUUN	2×LM13UU	813	1570	240	SC13VUUN	LM13UU	500	770	85		φ 13	15	22	44	30	24.5	8	33	5.5	M5×12	Φ4.3	26	39	50	75	20.5	SC13UUN
SC16UUN	LM16UU	774	1180	200	SC16WUUN	2×LM16UU	1230	2350	400	SC16VUUN	LM16UU	770	1170	132		φ 16	19	25	50	38.5	32.5	9	36	7	M5×12	Φ4.3	34	44	60	85	23.5	SC16UUN
SC20UUN	LM20UU	882	1370	255	SC20WUUN	2×LM20UU	1400	2740	570	SC20VUUN	LM20UU	860	1370	170		φ 20	21	27	54	41	35	11	40	7	M6×12	Φ5.2	40	50	70	96	27.4	SC20UUN
SC25UUN	LM25UU	980	1570	600	SC25WUUN	2×LM25UU	1560	3140	1200	SC25VUUN	LM25UU	980	1560	405		φ 25	26	38	76	51.5	42	12	54	11	M8×18	Φ7.0	50	67	100	130	37.4	SC25UUN
SC30UUN	LM30UU	1570	2740	735	SC30WUUN	2×LM30UU	2490	5490	1480	SC30VUUN	LM30UU	1560	2740	495		φ 30	30	39	78	59.5	49	15	58	10	M8×18	Φ7.0	58	72	110	140	40.9	SC30UUN
SC35UUN	LM35UU	1670	3140	1100	SC35WUUN	2×LM35UU	2650	6270	2200	SC35VUUN	LM35UU	1660	3130	790		φ 35	34	45	90	68	54	18	70	10	M8×18	Φ7.0	60	80	120	155	45.4	SC35UUN
SC40UUN	LM40UU	2160	4020	1590	SC40WUUN	2×LM40UU	3430	8040	3200	SC40VUUN	LM40UU	2150	4010	1220		φ 40	40	51	102	78	62	20	80	11	M10×25	Φ8.7	60	90	140	175	56.4	SC40UUN
SC50UUN	LM50UU	3820	7940	3340	SC50WUUN	2×LM50UU	6080	15900	6700	SC50VUUN	LM50UU	3820	7390	2300		φ 50	52	61	122	102	80	25	100	11	M10×25	Φ8.7	80	110	160	215	68.9	SC50UUN

1N≒0.102kgf

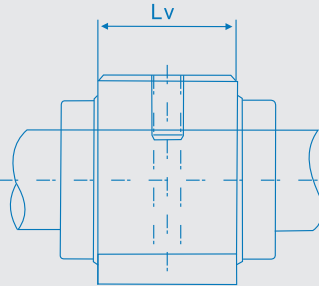
SCE Series



SCE



SCE □ W



SCE □ V

Standard Type					Long Type				Short Type				Dimensions(mm)															Part Number			
Part Number	Installed L/B	Basic Load Ratings		Wgt. (g)	Part Number	Installed L/B	Basic Load Ratings		Wgt. (g)	Part Number	Installed L/B	Basic Load Ratings		Wgt. (g)	Shaft Dia.	Common										SC			SCE□W		SCE□V
		C (N)	Co (N)				C (N)	Co (N)				C (N)	Co (N)			h	D	W	H	G	A	J	E	S1×I	S2	K	L		Kw	Lw	Lv
SCE8UU	LME8UU	260	400	60	SCE8WUU	2×LME8UU	410	800	98	SCE8VUU	LME8UU	260	400	40	φ 8	11	17	34	22	18	6	24	5	M4×8	Φ3.4	18	30		42	58	15.4
SCE12UU	LME12UU	410	590	118	SCE12WUU	2×LME12UU	650	1180	232	SCE12VUU	LME12UU	410	590	82	φ 12	15	22	44	30	24.5	8	33	5.5	M5×10	Φ4.3	26	36	50	70	20.5	SCE12UU
SCE16UU	LME16UU	770	1170	180	SCE16WUU	2×LME16UU	1230	2340	360	SCE16VUU	LME16UU	770	1170	122	φ 16	19	25	50	38.5	32.5	9	36	7	M5×12	Φ4.3	34	44	60	85	23.5	SCE16UU
SCE20UU	LME20UU	860	1370	245	SCE20WUU	2×LME20UU	1370	2740	490	SCE20VUU	LME20UU	860	1370	176	φ 20	21	27	54	41	35	11	40	7	M6×12	Φ5.2	40	53	70	96	27.4	SCE20UU
SCE25UU	LME25UU	980	1560	550	SCE25WUU	2×LME25UU	1560	3120	1100	SCE25VUU	LME25UU	980	1560	400	φ 25	26	38	76	51.5	41	12	54	11	M8×18	Φ6.8	50	67	100	130	37.4	SCE25UU
SCE30UU	LME30UU	1560	2740	760	SCE30WUU	2×LME30UU	2490	5480	1525	SCE30VUU	LME30UU	1560	2740	570	φ 30	30	39	78	59.5	49	15	58	10	M8×18	Φ6.8	58	72	110	140	40.9	SCE30UU
SCE40UU	LME40UU	2150	4010	1700	SCE40WUU	2×LME40UU	3440	8020	3400	SCE40VUU	LME40UU	2150	4010	1320	φ 40	40	51	102	78	62	20	80	11	M10×25	Φ8.6	60	90	140	175	56.4	SCE40UU
SCE50UU	LME50UU	3820	7930	2950	SCE50WUU	2×LME50UU	6110	15860	5920	SCE50VUU	LME50UU	3820	7930	1900	φ 50	52	61	122	102	80	24	100	11	M10×25	Φ8.6	80	110	160	215	68.9	SCE50UU

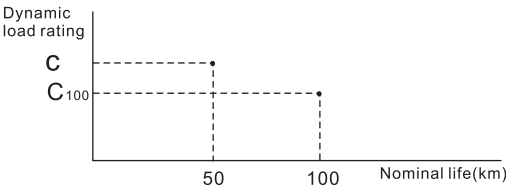
1N≒0.102kgf

note) Reference of dynamic load rating

Dynamic load rating is based on nominal life of 50km. In case of 100km, C on the table need to be divided by 1.26.

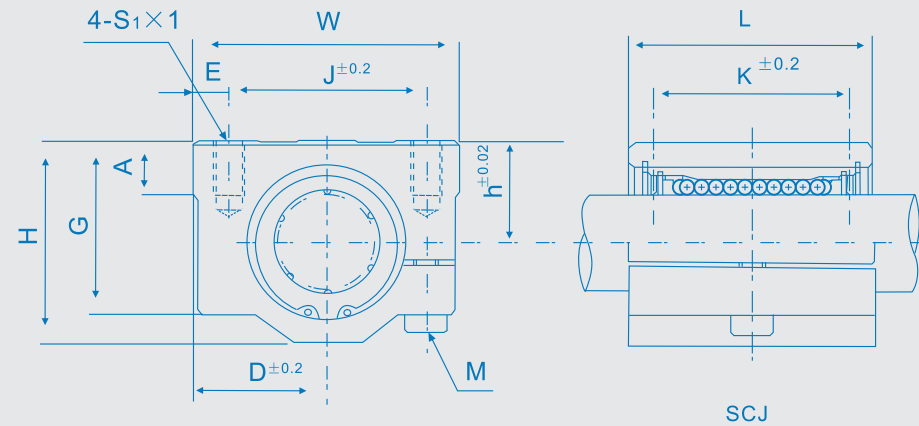
ex) LME20 C: 860N C₁₀₀: 682N

$$L=\left(\frac{C}{P}\right)^3 \times 50\text{km} \quad L=\left(\frac{C_{100}}{P}\right)^3 \times 100\text{km}$$



<IN'S Linear Ball Bearing System> <IN'S Support Rail Unit>

SCJ Series



Part Number	Installed L/B	Load Ratings		Shaft Dia.	Dimensions(mm)												Wgt. (g)
		C (N)	Co (N)		h	D	W	H	G	A	J	E	S ₁ ×I	K	L	M	
SCJ10UU	LM10UUAJ	372	549	φ 10	13	20	40	26	21	8	28	6	M5×12	21	35	M4	92
SCJ12UU	LM12UUAJ	510	784	φ 12	15	21	42	28	24	8	30.5	5.75	M5×12	26	36	M4	102
SCJ13UU	LM13UUAJ	510	784	φ 13	15	22	44	30	24.5	8	33	5.5	M5×12	26	39	M4	120
SCJ16UU	LM16UUAJ	774	1180	φ 16	19	25	50	38.5	32.5	9	36	7	M5×12	34	44	M4	200
SCJ20UU	LM20UUAJ	882	1370	φ 20	21	27	54	41	35	11	40	7	M6×12	40	50	M5	255
SCJ25UU	LM25UUAJ	980	1570	φ 25	26	38	76	51.5	41	12	54	11	M8×18	50	67	M6	600
SCJ30UU	LM30UUAJ	1570	2740	φ 30	30	39	78	59.5	49	15	58	10	M8×18	58	72	M6	735
SCJ35UU	LM35UUAJ	1670	3140	φ 35	34	45	90	68	54	18	70	10	M8×18	60	80	M6	1100
SCJ40UU	LM40UUAJ	2160	4020	φ 40	40	51	102	78	62	20	80	11	M10×25	60	90	M8	1590
SCJ50UU	LM50UUAJ	3820	7940	φ 50	52	61	122	102	80	25	100	11	M10×25	80	110	M8	3340

1N≒0.102kgf

IN'S Support Rail Unit is assembled by of Support Rail, SM Shaft, and Open type Linear Bushing installed Case. All components are standardized for providing interchangeability, and less cost and less designing time.

Support Rail (SA)

Support Rail provides maximum rigidity and stiffness to the shaft throughout the whole stroke, and ensure the performance of the unit.

Case (SME, SMD)

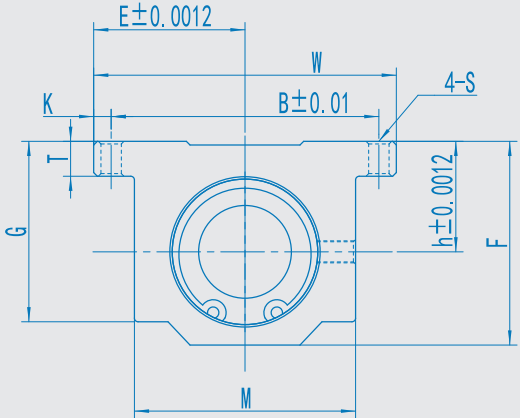
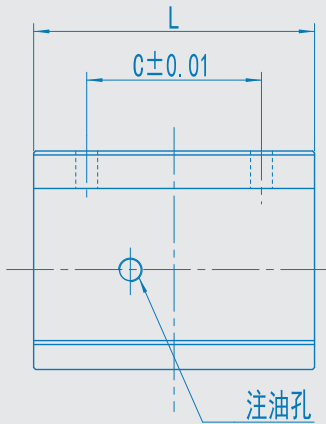
Effective for High load or long stroke application with maximum rigidity and excelent motion in combination with Open type Lineat Bushing. Moreover, preload can be applied on SME series for high precision performance.

Support Rail Unit (CE, CD)

CE and CD type are optimum guide units for high precision and deflection free sliding system with smooth motion and maximum rigidity, and less cost and time.

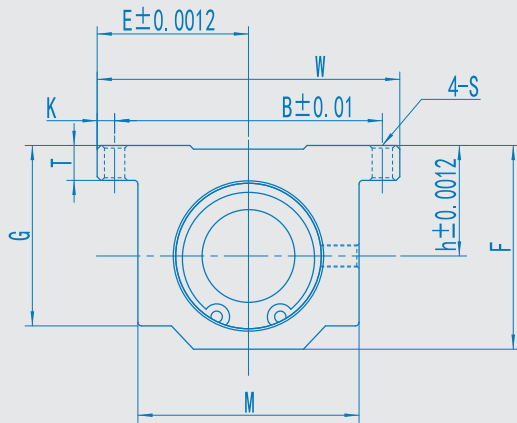
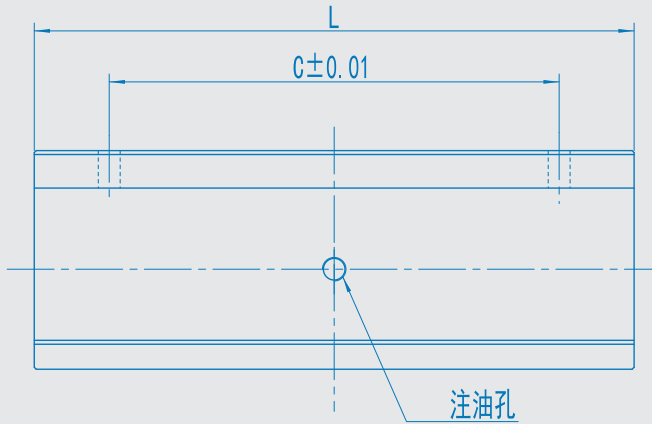


TWA Seriec



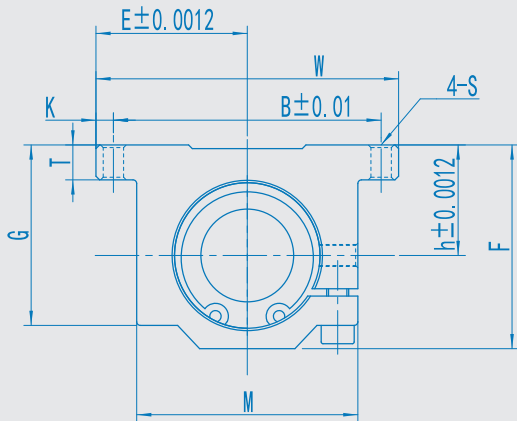
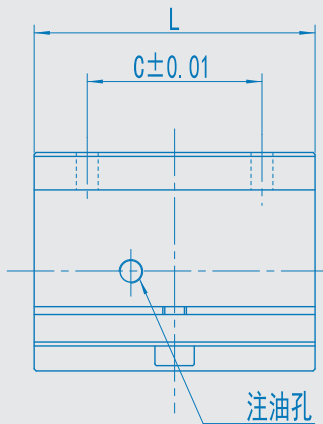
Major Dimensions and Tolerance (mm)										Mounting Dimensions (mm)					Basic load rating		
Normal part No.	Normal shaft diameter	h	E	w	L	F	T	G		M	B	C	K	S	dynamic C(N)	Static Co(N)	Weight g
	inch	inch	inch	inch	inch	inch	inch	inch		inch	inch	inch	inch	inch	ibf	ibf	ibf
TWA4UU	1/4	0.4730	0.8125	1.625	1.188	0.813	0.188	0.750		1.000	1.312	0.750	0.156	0.156	60	80	0.090
TWA6UU	3/8	0.5000	0.8750	1.750	1.313	0.938	0.188	0.875		1.125	1.437	0.875	0.156	0.156	95	120	0.120
TWA8UU	1/2	0.6870	1.0000	2.000	1.688	1.250	0.250	1.125		1.375	1.688	1.000	0.156	0.156	230	290	0.248
TWA10UU	5/8	0.8750	1.2500	2.500	1.938	1.625	0.281	1.437		1.750	2.125	1.125	0.188	0.188	400	500	0.465
TWA12UU	3/4	0.9370	1.3750	2.750	2.063	1.750	313	1.563		1.875	2.375	1.250	0.188	0.188	470	590	0.553
TWA16UU	1	1.1870	1.6250	3.250	2.813	2.188	0.375	1.938		2.375	2.875	1.750	0.188	0.219	850	1060	1.200
TWA20UU	1-1/4	1.5000	2.0000	4.000	3.625	2.813	0.438	2.500		3.000	3.500	2.000	0.250	0.219	1230	1530	2.380
TWA24UU	1-1/2	1.7500	2.3750	4.750	4.000	3.250	0.500	2.875		3.500	2.500	2.500	0.313	0.313	1480	1850	3.460
TWA32UU	2	2.1250	3.0000	6.000	5.000	4.063	625	3.625		4.500	3.250	3.250	0.375	0.375	2430	3040	6.830

TWA-W Seriec



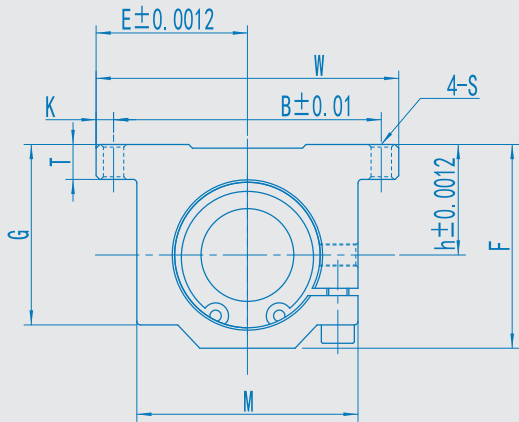
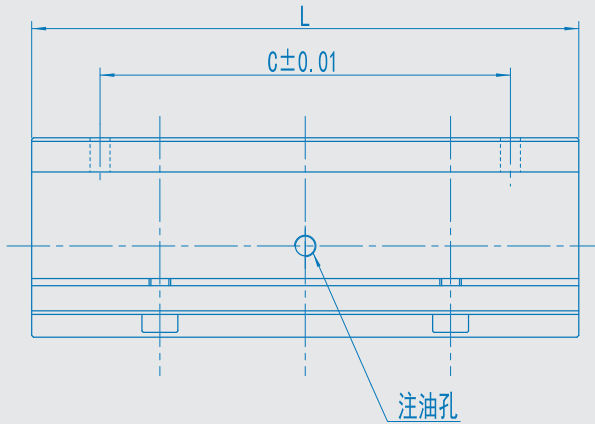
Major Dimensions and Tolerance (mm)										Mounting Dimensions (mm)					Basic load rating		
Norminal part No.	Norminal shaft diameter	h	E	w	L	F	T	G		M	B	C	K	S	dynamic C(N)	Static Co(N)	Weight g
	inch	inch	inch	inch	inch	inch	inch	inch		inch	inch	inch	inch	inch	ibf	ibf	ibf
TWA4WUU	1/4	0.4730	0.8125	1.625	2.500	0.813	0.188	0.750		1.000	1.312	2.000	0.156	0.156	96	160	0.190
TWA6WUU	3/8	0.5000	0.8750	1.750	2.750	0.938	0.188	0.875		1.125	1.437	2.250	0.156	0.156	150	240	0.250
TWA8WUU	1/2	0.6870	1.0000	2.000	3.500	1.250	0.250	1.125		1.375	1.688	2.500	0.156	0.156	370	580	0.510
TWA10WUU	5/8	0.8750	1.2500	2.500	4.000	1.625	0.281	1.437		1.750	2.125	3.000	0.188	0.188	640	1000	1.000
TWA12WUU	3/4	0.9370	1.3750	2.750	4.500	1.750	313	1.563		1.875	2.375	3.500	0.188	0.188	750	1180	1.200
TWA16WUU	1	1.1870	1.6250	3.250	6.000	2.188	0.375	1.938		2.375	2.875	4.500	0.188	0.219	1360	2120	2.400
TWA20WUU	1-1/4	1.5000	2.0000	4.000	7.500	2.813	0.438	2.500		3.000	3.500	5.500	0.250	0.219	1970	3060	5.000
TWA24WUU	1-1/2	1.7500	2.3750	4.750	9.000	3.250	0.500	2.875		3.500	4.125	6.500	0.313	0.281	2370	3700	7.800

TWJ Seriec



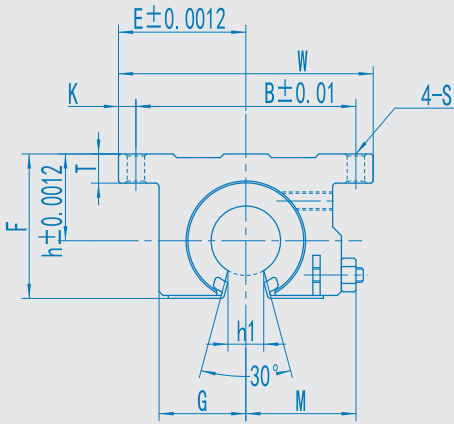
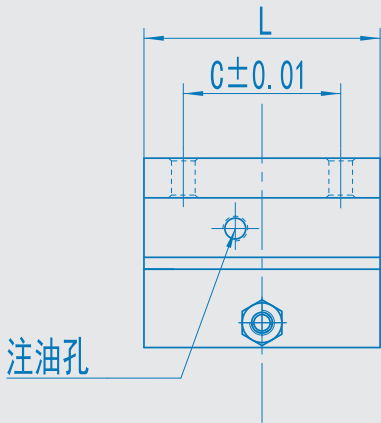
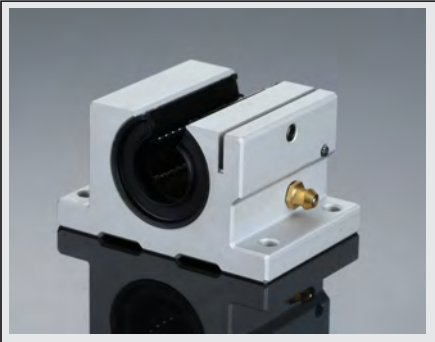
Major Dimensions and Tolerance (mm)										Mounting Dimensions (mm)					Basic load rating		
Normal part No.	Normal shaft diameter	h	E	w	L	F	T	G		M	B	C	K	S	dynamic C(N)	Static Co(N)	Weight g
	inch	inch	inch	inch	inch	inch	inch	inch		inch	inch	inch	inch	inch	ibf	ibf	ibf
TWJ4UU	1/4	0.4730	0.8125	1.625	1.188	0.813	0.188	0.750		1.000	1.312	0.750	0.156	0.156	60	80	0.090
TWJ6UU	3/8	0.5000	0.8750	1.750	1.313	0.938	0.188	0.875		1.125	1.437	0.875	0.156	0.156	95	120	0.120
TWJ8UU	1/2	0.6870	1.0000	2.000	1.688	1.250	0.250	1.125		1.375	1.688	1.000	0.156	0.156	230	290	0.248
TWJ10UU	5/8	0.8750	1.2500	2.500	1.938	1.625	0.281	1.437		1.750	2.125	1.125	0.188	0.188	400	500	0.465
TWJ12UU	3/4	0.9370	1.3750	2.750	2.063	1.750	313	1.563		1.875	2.375	1.250	0.188	0.188	470	590	0.553
TWJ16UU	1	1.1870	1.6250	3.250	2.813	2.188	0.375	1.938		2.375	2.875	1.750	0.188	0.219	850	1060	1.200
TWJ20UU	1-1/4	1.5000	2.0000	4.000	3.625	2.813	0.438	2.500		3.000	3.500	2.000	0.250	0.219	1230	1530	2.380
TWJ24UU	1-1/2	1.7500	2.3750	4.750	4.000	3.250	0.500	2.875		3.500	4.125	2.500	0.313	0.281	1480	1850	3.460
TWJ32UU	2	2.1250	3.0000	6.000	5.000	4.063	625	3.625		4.500	5.250	3.250	0.375	0.406	2430	3040	6.830

TWJ-W Seriec



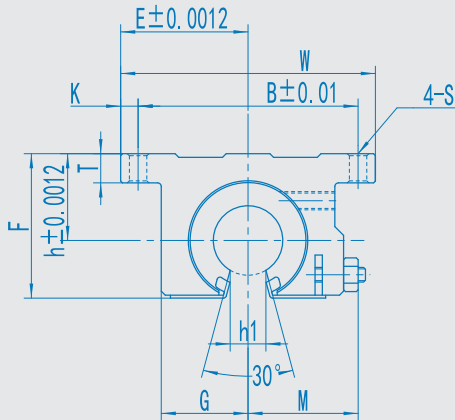
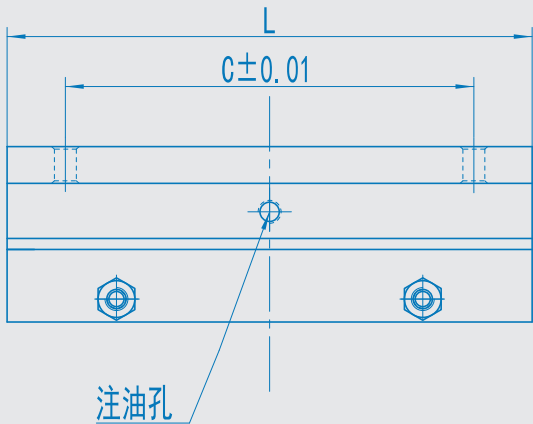
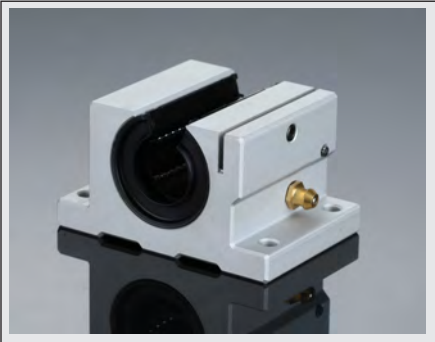
Major Dimensions and Tolerance (mm)										Mounting Dimensions (mm)					Basic load rating		
Normal part No.	Normal shaft diameter	h	E	w	L	F	T	G		M	B	C	K	S	dynamic C(N)	Static Co(N)	Weight g
	inch	inch	inch	inch	inch	inch	inch	inch		inch	inch	inch	inch	inch	ibf	ibf	ibf
TWJ4WUU	1/4	0.4730	0.8125	1.625	2.500	0.813	0.188	0.750		1.000	1.312	2.000	0.156	0.156	96	160	0.190
TWJ6WUU	3/8	0.5000	0.8750	1.750	2.750	0.938	0.188	0.875		1.125	1.437	2.250	0.156	0.156	150	240	0.250
TWJ8WUU	1/2	0.6870	1.0000	2.000	3.500	1.250	0.250	1.125		1.375	1.688	2.500	0.156	0.156	370	580	0.510
TWJ10WUU	5/8	0.8750	1.2500	2.500	4.000	1.625	0.281	1.437		1.750	2.125	3.000	0.188	0.188	640	1000	1.000
TWJ12WUU	3/4	0.9370	1.3750	2.750	4.500	1.750	313	1.563		1.875	2.375	3.500	0.188	0.188	750	1180	1.200
TWJ16WUU	1	1.1870	1.6250	3.250	6.000	2.188	0.375	1.938		2.375	2.875	4.500	0.188	0.219	1360	2120	2.400
TWJ20WUU	1-1/4	1.5000	2.0000	4.000	7.500	2.813	0.438	2.500		3.000	3.500	5.500	0.250	0.219	1970	3060	5.000
TWJ24WUU	1-1/2	1.7500	2.3750	4.750	9.000	3.250	0.500	2.875		3.500	4.125	6.500	0.313	0.281	2370	3700	7.800

TWD Seriec



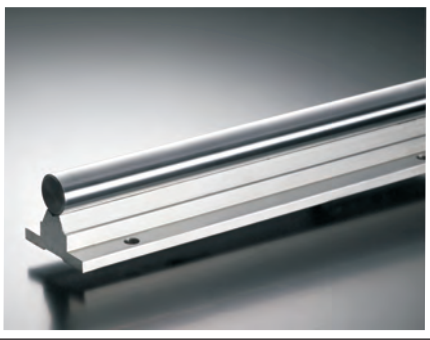
Major Dimensions and Tolerance (mm)										Mounting Dimensions (mm)						Basic load rating		
Norminal part No.	Norminal shaft diameter	h	E	w	L	F	T	G		M	h1	B	C	K	S	dynamic C(N)	Static Co(N)	Weight g
	inch	inch	inch	inch	inch	inch	inch	inch		inch	inch	inch	inch	inch	inch	ibf	ibf	ibf
TWD8UU	1/2	0.6870	1.0000	2.000	1.500	1.100	0.250	0.688		0.86	0.260	1.688	1.000	0.156	0.156	230	290	0.188
TWD10UU	5/8	0.8750	1.2500	2.500	1.750	1.405	0.281	0.875		1.06	0.319	2.125	1.125	0.188	0.188	400	500	0.365
TWD12UU	3/4	0.9370	1.3750	2.750	1.875	1.535	0. 315	0.937		1.12	0.389	2.375	1.250	0.188	0.188	470	590	0.452
TWD16UU	1	1.1870	1.6250	3.250	2.625	1.975	0.375	1.188		1.4	0.512	2.875	1.750	0.188	0.218	850	1060	1.010
TWD20UU	1-1/4	1.5000	2.0000	4.000	3.375	2.485	0.437	1.500		1.88	0.596	3.500	2.000	0.250	0.218	1230	1530	1.980
TWD24UU	1-1/2	1.7500	2.3750	4.750	3.750	2.910	0.500	1.750		2.12	0.681	4.125	2.500	0.313	0.281	1480	1850	2.950
TWD32UU	2	2.1250	3.0000	6.000	4.750	3.660	0.625	2.250		2.7	0.933	5.250	3.250	0.375	0.406	2430	3040	5.840

TWD-W Seriec



Major Dimensions and Tolerance (mm)											Mounting Dimensions (mm)					Basic load rating		
Norminal part No.	Norminal shaft diameter	h	E	w	L	F	T	G		M	h1	B	C	K	S	dynamic C(N)	Static Co(N)	Weight g
	inch	inch	inch	inch	inch	inch	inch	inch		inch	inch	inch	inch	inch	inch	ibf	ibf	ibf
TWD8WUU	1/2	0.6870	1.0000	2.000	3.500	1.100	0.250	0.688		0.86	0.260	1.688	2.500	0.156	0.156	370	580	0.400
TWD10WUU	5/8	0.8750	1.2500	2.500	4.000	1.405	0.281	0.875		1.06	0.319	2.125	3.000	0.188	0.188	640	1000	0.800
TWD12WUU	3/4	0.9370	1.3750	2.750	4.500	1.535	0.315	0.937		1.12	0.389	2.375	3.500	0.188	0.188	750	1180	1.000
TWD16WUU	1	1.1870	1.6250	3.250	6.000	1.975	0.375	1.188		1.4	0.512	2.875	4.500	0.188	0.218	1360	2120	2.000
TWD20WUU	1-1/4	1.5000	2.0000	4.000	7.500	2.485	0.437	1.500		1.88	0.596	3.500	5.500	0.250	0.218	1970	3060	4.200
TWD24WUU	1-1/2	1.7500	2.3750	4.750	9.000	2.910	0.500	1.750		2.12	0.681	4.125	6.500	0.313	0.281	2370	3700	6.700

SBS Series



Part Number Notation

SB ☐ ☐ **-1000L**

Support Rail for
SBR Unit

Support Rail Length*

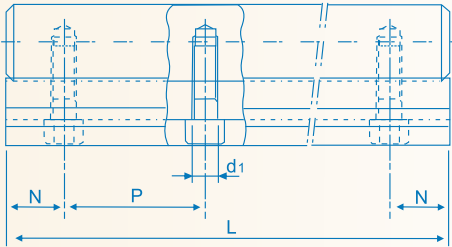
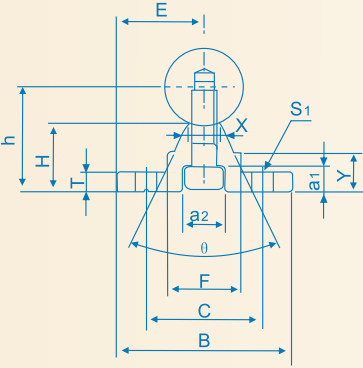
Shaft

S: Shaft include

- : Shaft not include

LM Shaft Diameter.

*Standard lengths are recommended
on the table below.
Drawing should be received with the
order for customer design.

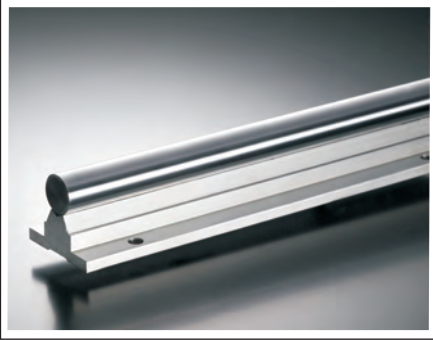


Part Number	Shaft Dia.	Dimensions(mm)														Wgt. (Kg)/m
		E	h	B	H	T	F	X	Y	C	θ	S1	a1	a2	d1	
SBS16	φ 16	20	25	40	17.8	5	18.5	8	11.7	30	80°	φ 5.5	6	9.5	5.5	2.56
SBS20	φ 20	22.5	27	45	17.7	5	19	8	10	30	50°	φ 5.5	6.5	11	6.6	3.50
SBS25	φ 25	27.5	33	55	21	6	21.5	8	12	35	50°	φ 6.6	6.5	11	6.6	5.30
SBS30	φ 30	30	37	60	22.8	7	26.5	10.3	13	40	50°	φ 6.6	8.5	14	9	7.38
SBS35	φ 35	32.5	43	65	26.6	8	28	13	15.5	45	50°	φ 9	8.5	14	9	9.68
SBS40	φ 40	37.5	48	75	29.4	9	38	16	17	55	50°	φ 9	8.5	14	9	12.69
SBS50	φ 50	47.5	62	95	38.8	11	45	20	21	70	50°	φ 11	12.5	19	11	20.46

Standard Length of Support Rail and Dimensions

Part Number	SBS16	SBS20	SBS25	SBS30	SBS35	SBS40	SBS50
Standard Length (L)	190	340	250	450	460	460	470
	340	640	450	850	660	660	670
	640	940	850	1250	860	860	870
	940	1240	1250	1450	1060	1060	1070
N	20	20	25	25	30	30	35
Pitch(P)	150	150	200	200	200	200	200
Max.Length	1390	1390	1850	1850	1860	1860	2070

TBS Series



Part Number Notation

TB ☐ ☐ **-1000L**

Support Rail for
TBR Unit

Support Rail Length*

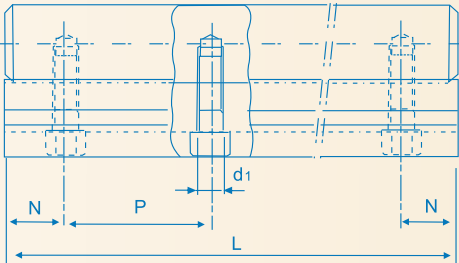
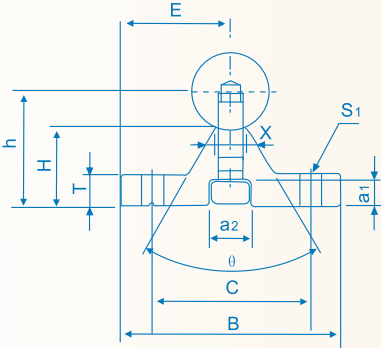
Shaft

S: Shaft include

- : Shaft not include

LM Shaft Diameter.

*Standard lengths are recommended
on the table below.
Drawing should be received with the
order for customer design.

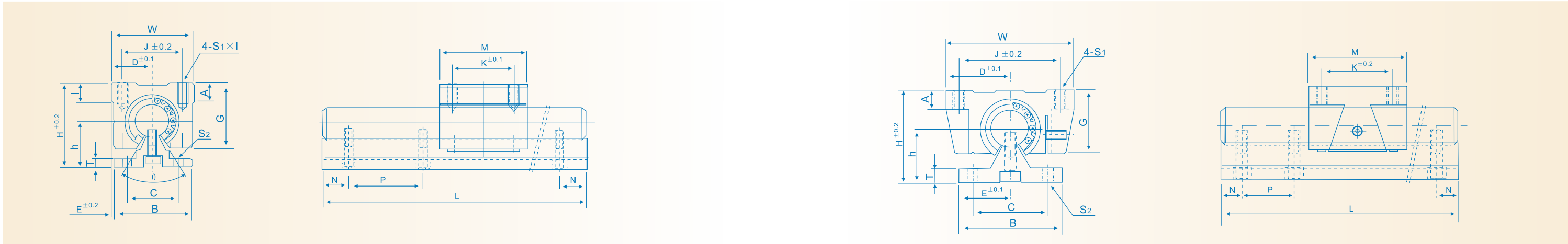
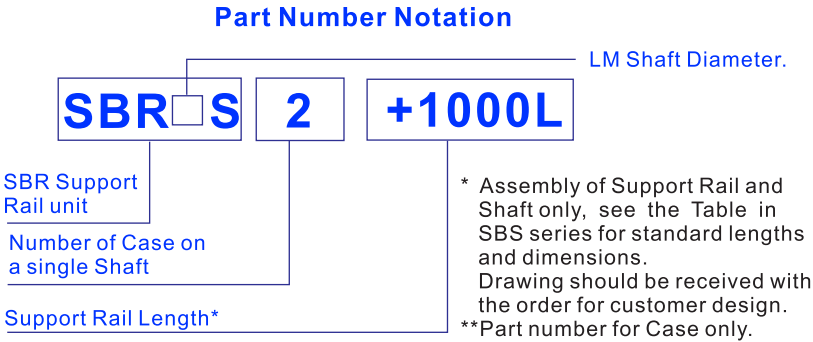
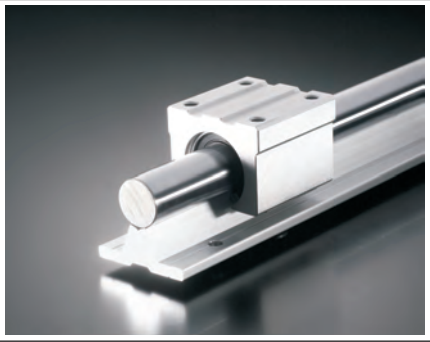


Part Number	Shaft Dia.	Dimensions(mm)												Wgt. (Kg)/m
		E	h	B	H	T	X	C	θ	S1	a1	a2	d1	
TBS16	ϕ 16	25	22	50	14.84	6	8	37	60°	ϕ 5.5	6	9.5	5.5	2.66
TBS20	ϕ 20	27.5	29	55	19.64	8	8	40	50°	ϕ 5.5	6.5	11	6.6	4.23
TBS25	ϕ 25	32.5	32	65	20	10	8	45	50°	ϕ 6.6	6.5	11	6.6	5.85
TBS30	ϕ 30	37.5	36.5	75	22.28	12	10.3	55	50°	ϕ 6.6	8.5	14	9	8.28

Standard Length of Support Rail and Dimensions

Part Number	TBS16	TBS20	TBS25	TBS30
Standard Length (L)	190	340	250	450
	340	640	450	850
	640	940	850	1250
	940	1240	1250	1450
N	20	20	25	25
Pitch(P)	150	150	200	200
Max.Length	1390	1390	1850	1850

SBR□ S Series

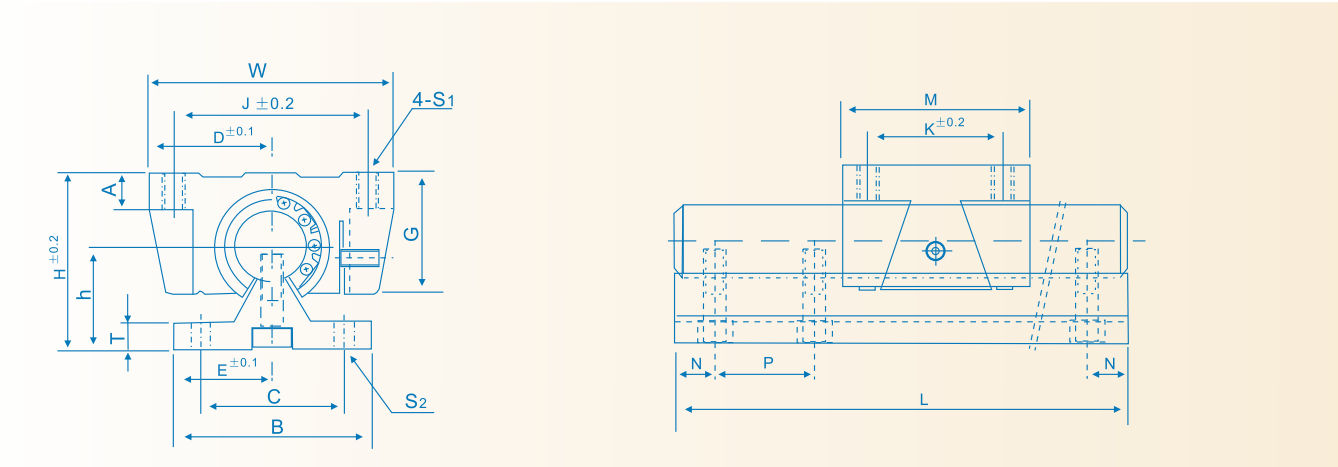
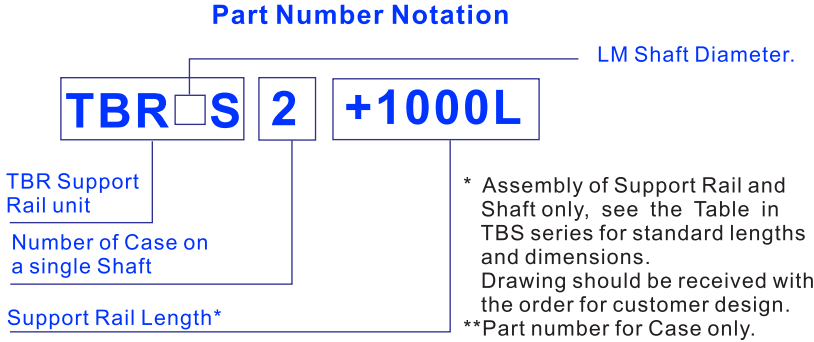


Part Number		Shaft Dia.	Basic Load Ratings		Weight		Dimensions(mm)				
Unit	Case*		Dynamic C(N)	Static Co(N)	Case(kg)	Rail(kg/m)	D	h	H	E	θ
SBR16S	SBR16UU	φ16	770	1170	0.15	2.55	22.5	25	45	2.5	80°
SBR20S	SBR20UU	φ20	860	1370	0.20	3.50	24	27	50	1.5	60°
SBR25S	SBR25UU	φ25	980	1560	0.45	5.30	30	33	60	2.5	50°
SBR30S	SBR30UU	φ30	1560	2740	0.63	7.40	35	37	70	5	50°
SBR35S	SBR35UU	φ35	1660	3130	0.92	10.05	40	43	80	7.5	50°
SBR40S	SBR40UU	φ40	2150	4010	1.33	13.10	45	48	90	7.5	50°
SBR50S	SBR50UU	φ50	3820	7930	3.00	20.65	60	62	115	12.5	50°

Part Number	Dimensions(mm)												
	W	G	A	B	T	M	S1×I	J	K	S2	C	N*	P*
SBR16S	45	33	9	40	5	45	M5×12	32	30	φ 5.5	30	20	150
SBR20S	48	39	11	45	5	50	M6×12	35	35	φ 5.5	30	20	150
SBR25S	60	47	14	55	6	65	M6×12	40	40	φ 6.6	35	25	200
SBR30S	70	56	15	60	7	70	M8×18	50	50	φ 6.6	40	25	200
SBR35S	80	63	18	65	8	80	M8×18	55	55	φ 9	45	30	200
SBR40S	90	72	20	75	9	90	M10×20	65	65	φ 9	55	30	200
SBR50S	120	91	25	95	11	110	M10×20	94	80	φ 11	70	35	200

*:Standard 1N≒0.102kgf

TBR□ S Series



Part Number		Shaft Dia.	Basic Load Ratings		Weight		Dimensions(mm)			
Unit	Case**		Dynamic C(N)	Static Co(N)	Case(kg)	Rail(kg/m)	D	h	H	E
TBR16S	TBR16UU	φ 16	392	490	0.18	2.45	31	22.14	40	25
TBR20S	TBR20UU	φ 20	784	1176	0.30	3.60	34	29.01	50	27.5
TBR25S	TBR25UU	φ 25	1568	2352	0.60	5.60	41	31.97	60	32.5
TBR30S	TBR30UU	φ 30	1764	2940	0.90	8.00	45.5	36.52	70	37.5

Part Number	Dimensions(mm)												
	W	G	A	B	T	M	S1	J	K	S2	C	N*	P*
TBR16S	62	26	8	50	6	42	M5	50	30	φ 5.5	37	20	150
TBR20S	68	31	10	55	8	51	M6	54	37	φ 5.5	40	20	150
TBR25S	82	41	12	65	10	65	M8	65	50	φ 6.6	45	25	200
TBR30S	91	48	12	75	12	75	M8	75	60	φ 6.6	55	25	200

*:Standard 1N≒0.102kgf

IN'S[®]

<IN'S Linear Ball Bearing System>

<Super Linear Ball Bearing>

SHF Type

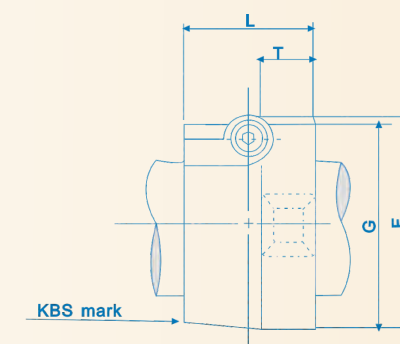
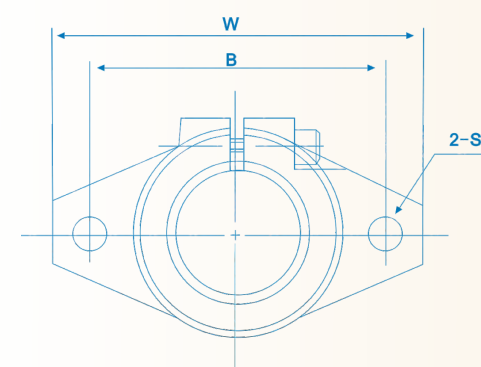


Part number structure
example

SHF 25

SHF type

Shaft diameter



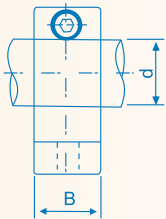
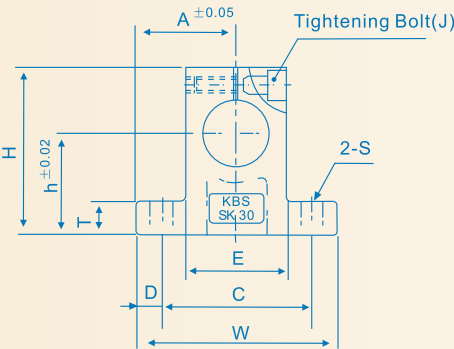
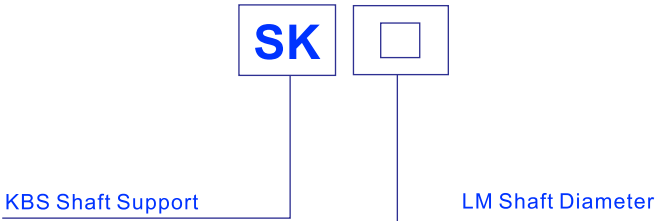
Part Number	Shaft Diameter mm	Major Dimensions							Adjusting Bolt Size	Wgt. g
		W mm	L mm	T mm	F mm	G mm	B mm	S (Bolt Size) mm		
SHF 10	10	43	10	5	24	20	32	5.5(M5)	M 4	13
SHF 12	12	47	13	7	28	25	36	5.5(M5)	M 4	20
SHF 13	13	47	13	7	28	25	36	5.5(M5)	M 4	20
SHF16	16	50	16	8	31	28	40	5.5(M5)	M 4	27
SHF 20	20	60	20	8	37	34	48	7(M6)	M 5	40
SHF 25	25	70	25	10	42	40	56	7(M6)	M 5	60
SHF 30	30	80	30	12	50	46	64	9(M8)	M 6	110
SHF 35	35	92	35	14	58	50	72	12(M10)	M 8	380
SHF 40	40	102	40	16	67	56	80	12(M10)	M 10	510
SHF 50	50	122	50	19	83	70	96	14(M12)	M 12	890
SHF 60	60	140	60	23	95	82	112	14(M12)	M 12	1,500

Shaft Support

Support for Shaft ends. KBS Shaft Support is made of Aluminium with compact design, and able to fix the LM Shaft by tightening bolt at the axial direction slot.



KBS Shaft Support SK Series



IN'S®

<IN'S Linear Ball Bearing System>
<Super Linear Ball Bearing>

Part Number	Shaft Dia.	Dimensions(mm)											Wgt. (g)
		h	A	W	H	T	E	D	C	B	S	J	
SK8	φ 8	20	21	42	32.8	6	18	5	32	14	φ 5.5	M4	24
SK10	φ 10	20	21	42	32.8	6	18	5	32	14	φ 5.5	M4	24
SK12	φ 12	23	21	42	38	6	20	5	32	14	φ 5.5	M4	30
SK13	φ 13	23	21	42	38	6	20	5	32	14	φ 5.5	M4	30
SK16	φ 16	27	24	48	44	8	25	5	38	16	φ 5.5	M4	40
SK20	φ 20	31	30	60	51	10	30	7.5	45	20	φ 6.6	M5	70
SK25	φ 25	35	35	70	60	12	38	7	56	24	φ 6.6	M6	130
SK30	φ 30	42	42	84	70	12	44	10	64	28	φ 9	M6	180
SK35	φ 35	50	49	98	85	15	50	12	74	32	φ 11	M8	270
SK40	φ 40	60	57	114	96	15	60	12	90	36	φ 11	M8	420
SK50	φ 50	70	63	126	120	18	74	13	100	40	φ 14	M14	750
SK60	φ 60	80	74	148	136	18	90	14	120	45	φ 14	M12	1100

Fine Shaft

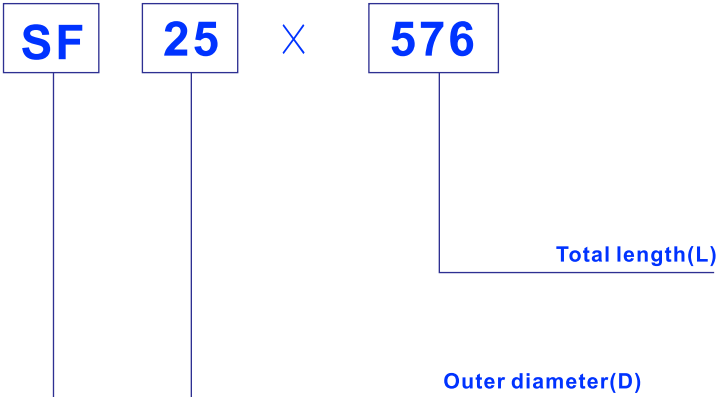
The KBS fine shaft is standardized as the most frequently used slide shafts with the KBS linear bush. The diversification of industrial needs for rationalization, energy conservation, lower cost, etc. is proceeding rapidly. In such an environment, KBS Fine Shafts are mass produced to maintain the highest quality and accuracy while lowering the component cost.



Part number structure example

Material

SF	SUJ2	(solid)
SFH	SUJ2	(hollow)
SFC	SUJ2	(solid chrome plating)
SFHC	SUJ2	(hollow chrome plating)
SSF	SUS440	(solid)
SSFH	SUS440	(hollow)
SFS	S45	(solid)
SFSC	S45	(solid chrome plating)

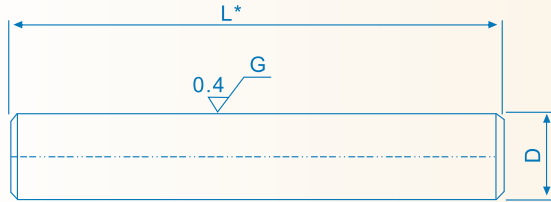


Fine Shaft(SF Type)

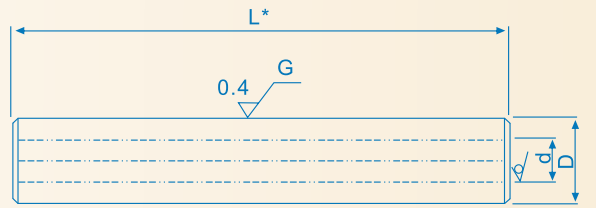
Part Number	Outer Diameter		Length L mm													Mass kg/m
	D	Tolerance g6 μm														
	mm		100	200	300	400	500	600	800	1000	1200	1500	1800	2000		
SF 6	6	-4/-12		100				600							0.23	
SF 8	8	-5							800						0.40	
SF 10	10	-14			200					1000					0.62	
SF 12	12	-6										1500			0.89	
SF 13	13	-17													1.04	
SF 16	16	-17				300								2000	1.58	
SF 20	20	-7													2.47	
SF 25	25	-20					400								3.85	
SF 30	30	-20													5.55	
SF 35	35	-9						500							7.55	
SF 40	40	-25							600						9.87	
SF 50	50	-25								600					15.4	

Material:high-carbon chromium bearing steel(SUJ2) hardness:HV697(60HRC) or more

SF/SFH



SFH/SFHC



*JISB0405 coarse-grade applies to lenght(L).

Pipe Fine Shaft (SFH Type)

Part Number	Outer Diameter		Inner diameter d mm	Length L mm													Mass kg/m
	D mm	Tolerance g6 μm		100	200	300	400	500	600	800	1000	1200	1500	1800	2000		
SFH 6	6	-4/-12	2		100		400									0.20	
SFH 8	8	-5	3					600								0.34	
SFH 10	10	-14	4			200				1000						0.52	
SFH 12	12	-6	5									1500				0.73	
SFH 13	13		6													0.82	
SFH 16	16		8			300								2000		1.18	
SFH 20	20	-7	10													1.85	
SFH 25	25		15				400									2.46	
SFH 30	30		16													3.97	
SFH 35	35	-9	19					500								5.32	
SFH 40	40		20													7.39	
SFH 50	50		26							600							11.3

Material:high-carbon chromium bearing steel(SUJ2) hardness:HV697(60HRC) or more

Stainless Fine Shaft (SSF & SSFH Type)

Part Number	Outer Diameter		Length L mm													Mass kg/m
	D mm	Tolerance g6 μm														
			100	200	300	400	500	600	800	1000	1200	1500	1800	2000		
SSF 6	6	-4/-12		100					600							0.33
SSF 8	8	-5								800						0.39
SSF 10	10	-14			200						1000					0.61
SSF 12	12	-6										1500				0.88
SSF 13	13	-17														1.03
SSF 16	16	-17				300									2000	1.56
SSF 20	20	-7														2.43
SSF 25	25	-20					400									3.80
SSF 30	30	-20														5.48
SSF 35	35	-9						500								7.23
SSF 40	40	-25														9.44
SSF 50	50	-25							600							15.2

Material:Matensite stainless steel(equivalent to SUS 440C)
hardness:HV653(58HRC) or more, HV613(56HRC) or more for φ3-6



Fine Shaft S45C Material (SFS & SFSC)

Part Number	Outer Diameter		Length L mm													Mass kg/m
	D mm	Tolerance g6 μm														
			500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000		
SFS/SFSC	2	-2														0.02
SFS/SFSC	3	-8														0.06
SFS/SFSC	4	-4														0.10
SFS/SFSC	5															0.16
SFS/SFSC	6	-12														0.23
SFS/SFSC	7	-5														0.30
SFS/SFSC	8															0.40
SFS/SFSC	9		-14													0.50
SFS/SFSC	10															0.62
SFS/SFSC	11															0.75
SFS/SFSC	12															0.89
SFS/SFSC	13															1.04
SFS/SFSC	14															1.21
SFS/SFSC	15															1.39
SFS/SFSC	16															1.56
SFS/SFSC	17															1.78
SFS/SFSC	18															2.00
SFS/SFSC	19	-17														2.23
SFS/SFSC	20		-20													
SFS/SFSC	22															2.98
SFS/SFSC	25	-7														3.85
SFS/SFSC	28	-16														4.83
SFS/SFSC	30															5.55
SFS/SFSC	32	-9														6.31
SFS/SFSC	35															
SFS/SFSC	38	-25														8.90
SFS/SFSC	40															
SFS/SFSC	45															12.50
SFS/SFSC	50															15.40
SFS/SFSC	55	-10														18.70
SFS/SFSC	60															
SFS/SFSC	65															26.65
SFS/SFSC	70	-29														30.20
SFS/SFSC	75															
SFS/SFSC	80															39.40
SFS/SFSC	85	-12														44.50
SFS/SFSC	90															
SFS/SFSC	95	-34														55.60
SFS/SFSC	100															

Chemical composition of S45C Material

S45C	C	Si	Mn	P	S	Cu	Ni	Cr	Mo
	0.42~0.48	0.15~0.35	0.6~0.9	0.03~0.012	0.01~0.03	0.1~0.3	0.06~0.2	0.06~0.2	0.145

Rockwell: HRC 54—56
RoughNess: 0.6S—1.5S Rmax (μ m)
Tolerance: 96
Out Diameter: φ2-φ100

Order Lenght : 500mm—3000 mm (6.000 mm)
Straightness: 60 μ m/m (30 μ m/m)
Roundness: 96 (6—17 μ m/m)
Cylindricity: 4-14 μ m (φ2— φ100)

Ball Bushing-Compact Type

INS	NTN	STAR	INA	SKF	FAG
KH..	KH..	0658-0..-00	KH..	LBBR..	LNA..
			(LBBS..)		(LNA..)
KH.. PP	KH.. LL	0658-2..-40	KH.. PP	LBBR..2LS	LNA..2RS
			(LBBS..2LS)		(LFA..2RS)

Ball Bushing-Resin Retainer

INS	NB	THK	EASE
LM..	SM..G	LM..	SDM..
LM..UU	SM..GUU	LM..UU	SDM..UU
LM..AJ	SM..GAJ	LM..AJ	SDM..AJ
LM..UUAJ	SM..GUUAJ	LM..UUAJN	SDM..UUAJ
LM..OP	SM..GOP	LM..OP	SDM..OP
LM..UUOP	SM..GUUOP	LM..UUOP	SDM..UUOP

The above types are metric dimension series generally used in Japan and other countries.

INS	NB	THK	EASE
LMB..	SW..G	LMB..	SDB..
LMB..UU	SW..GUU	LMB..UU	SDB..UU
LMB..AJ	SW..GAJ	LMB..AJ	SDB..AJ
LMB..UUAJ	SW..GUUAJ	LMB..UUAJ	SDB..UUAJ
LMB..OP	SW..GOP	LMB..OP	SDB..OP
LMB..UUOP	SW..GUUOP	LMB..UUOP	SDB..UUOP

The above types are inch dimension series generally used in US.

INS	NB	INA	SKF	THK	IKO	IKO	EASE
LME..	KB..G	KB..	LBAR/LBCR..	LME..	LBE..	MAM..	SDE..
LME..UU	KB..GUU	KB..PP	LBAR/LBCR..2LS	LME..UU	LBE..UU	MAM..WW	SDE..UU
LME..AJ	KB..GAJ	KBS..	LBAS..	LME..AJ	LBE..AJ	MAM..ADJ	SDE..AJ
LME..UUAJ	KB..GUUAJ	KBS..PP	LBAS..2LS	LME..UUAJ	LBE..UUAJ	MAM..ADJ WW	SDE..UUAJ
LME..OP	KB..GOP	KBO..	LBAT/LBCT..	LME..OP	LBE..OP	MAM..OPN	SDE..OP
LME..UUOP	KB..GUUOP	KBO..PP	LBAT/LBCT..2LS	LME..UUOP	LBE..UUOP	MAM..OPN WW	SDE..UUOP

The above types are metric dimension series generally used in Europe.