



LINEAR MOTION BALL BEARINGS



CiXi Bao Ding Co., Ltd

AUTHORISED AGENT IN INDIA :

BEARINGS INDIA

Rattan Building, Room No. 19

3rd Floor, 25 Bibijan Street,

Mumbai - 400003

Ph. : 98-200-63633, 022-32994523

Fax : 022- 24134938

Email : bearingsindia@vsnl.net

BRIEF INTRODUCTION

BD is the bearing trademark of BAO DIN Industry company. It's a professional enterprise in linear motion ball bearings in China. The main products of our enterprise are linear motion ball bearings and nonstandard bearings. Our products are used widely in the fields of military industry, precision machinery, medical instrument and machinery, chemistry industry, printing, agriculture, robot, automatic line etc. And established line are used widely in the fields of imported automobile and so on.

BD bearings are manufactured with advanced production facilities, steel of quality, good craft equipment and testing and measuring instrument. We strictly carry out the requirement of ISO9002 quality system so that our products have the features of stable quality, high precision and durability.

BD linear motion ball bearings have all sorts of types and our products are the most reliable products. We will meet with your requests well if any of clients have special requests, e.g. half-and-half bearing and adjustable linear bearing.

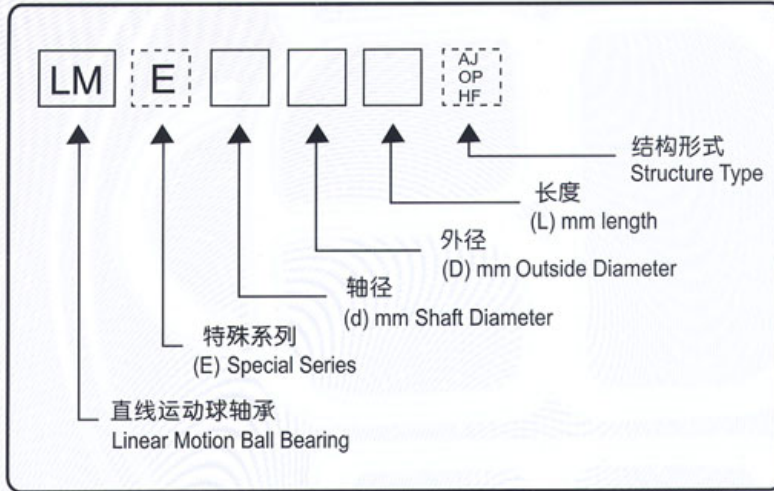
The principle of our enterprise is "clients the first, quality to the top".



LINEAR MOTION BALL BEARINGS

Bearings India

Call 98-200-63633
or 022- 32994523



精 度
Accuracy

直线运动球轴承制造精度可分为(P)普通级、(J)精密级
特殊系列只有普通级
各级尺寸偏差参见表列数据

According to their tolerances, the linear motion ball bearings are classified into class P(normal) and class J(precision).

Bearings of special series(LBE) are made to normal class only.

The tolerances for class P and J are given in the following tables.

轴承与轴、箱孔的配合
Fits for shafts and Housing seatings

| 轴承 Bearing | | 轴 Shaft | | 箱孔 Housing Seating | |
|---------------|-------------------------|---------------------------------|-------------------------------|-----------------------|------------------------|
| 系列 Series | 精度等级 Tolerance class | 一般间隙 Normal radial clearance | 小间隙 Small radial clearance | 间隙配合 Clearance fit | 过度配合 Transition fit |
| LM | (P) 普通级 normal | f6, g6 | h6 | H7 | J7 |
| | (J) 精密级 precision | f5, g5 | h5 | H6 | J6 |
| LME | | h6 | j6 | H7 | J7 |

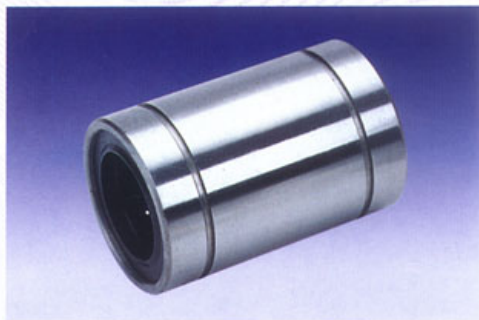


BAO DING

LINEAR MOTION BALL BEARINGS

Bearings India

Call 98-200-63633
or 022- 32994523



尺寸参数

Specification

通用系列 Normal series

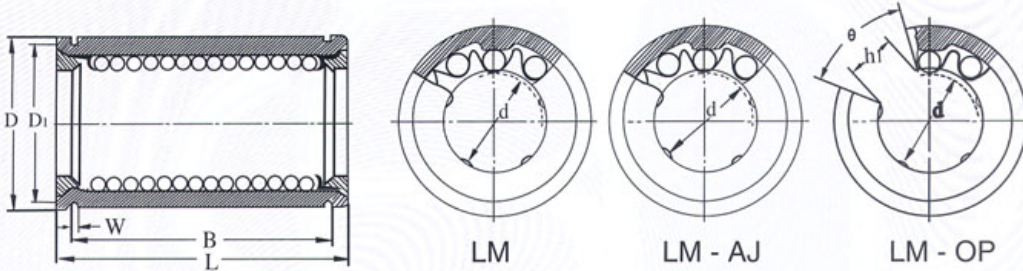
LM

| Nominal Part No. | | | | | | | Nominal Shaft Diameter(mm) | |
|------------------|------|-----------|--------------|------------|-----------------|-----------|----------------------------|--|
| Standard | Type | Seal Type | Ball Circuit | Weight grf | Adjustable Type | Open Type | Tolerance | |
| LM | 5 | LM 5UU | 4 | 4 | — | — | 5 | $\begin{matrix} 0 \\ -0.008 \end{matrix}$ |
| LM | 6 | LM 6UU | 4 | 8 | LM 6-AJ | — | 6 | $\begin{matrix} 0 \\ -0.008 \end{matrix}$ |
| LM | 8S | LM 8SUU | 4 | 11 | LM 8S-AJ | — | 8S | $\begin{matrix} 0 \\ -0.008 \end{matrix}$ |
| LM | 8 | LM 8UU | 4 | 16 | LM 8-AJ | — | 8 | $\begin{matrix} 0 \\ -0.008 \end{matrix}$ |
| LM | 10 | LM 10UU | 4 | 30 | LM 10-AJ | — | 10 | $\begin{matrix} 0 \\ -0.009 \end{matrix}$ |
| LM | 12 | LM 12UU | 4 | 31.6 | LM 12-AJ | LM 12-OP | 12 | $\begin{matrix} 0 \\ -0.009 \end{matrix}$ |
| LM | 13 | LM 13UU | 4 | 43 | LM 13-AJ | LM 13-OP | 13 | $\begin{matrix} 0 \\ -0.009 \end{matrix}$ |
| LM | 16 | LM 16UU | 5 | 69 | LM 16-AJ | LM 16-OP | 16 | $\begin{matrix} 0 \\ -0.008 \end{matrix}$ |
| LM | 20 | LM 20UU | 5 | 87 | LM 20-AJ | LM 20-OP | 20 | $\begin{matrix} 0 \\ -0.008 \end{matrix}$ |
| LM | 25 | LM 25UU | 6 | 220 | LM 25-AJ | LM 25-OP | 25 | $\begin{matrix} 0 \\ -0.008 \end{matrix}$ |
| LM | 30 | LM 30UU | 6 | 250 | LM 30-AJ | LM 30-OP | 30 | $\begin{matrix} 0 \\ -0.0010 \end{matrix}$ |
| LM | 35 | LM 35UU | 6 | 390 | LM 35-AJ | LM 35-OP | 35 38 | $\begin{matrix} 0 \\ -0.0010 \end{matrix}$ |
| LM | 40 | LM 40UU | 6 | 585 | LM 40-AJ | LM 40-OP | 40 | $\begin{matrix} 0 \\ -0.0015 \end{matrix}$ |
| LM | 50 | LM 50UU | 6 | 1580 | LM 50-AJ | LM 50-OP | 50 | $\begin{matrix} 0 \\ -0.0015 \end{matrix}$ |
| LM | 60 | LM 60UU | 6 | 2000 | LM 60-AJ | LM 60-OP | 60 | $\begin{matrix} 0 \\ -0.0015 \end{matrix}$ |

LINEAR MOTION BALL BEARINGS

Bearings India

Call 98-200-63633
or 022- 32994523



| Major Dimensions and Tolerance (mm) | | | | | | | | | Eccentricity (max) μm | Radial Clearance (max) μm | Basic load Rating C Co Kgf | | Nominal part No. |
|---|---|---|------|------|-----|----|-----|---|-----------------------------|------------------------------------|-------------------------------------|------|---------------------|
| D Tolerance | L Tolerance | B Tolerance | W | D1 | h | h1 | θ | | | | | | |
| 10 $\begin{matrix} 0 \\ -0.009 \end{matrix}$ | 15 $\begin{matrix} 0 \\ -0.012 \end{matrix}$ | 10.2 | 1.1 | 9.6 | — | — | — | — | 8 | -3 | 17 | 21 | LM 5 |
| 12 $\begin{matrix} 0 \\ -0.011 \end{matrix}$ | 19 | 13.5 | 1.1 | 11.5 | 1 | — | — | — | 12 | -5 | 21 | 27 | LM 6 |
| 15 | 17 | 11.5 | 1.1 | 14.3 | 1 | — | — | — | 12 | -5 | 18 | 23 | LM 8S |
| 15 | 24 | 17.5 | 1.1 | 14.3 | 1 | — | — | — | 12 | -5 | 27 | 41 | LM 8 |
| 19 | 29 | 22 | 1.3 | 18 | 1 | — | — | — | 12 | -5 | 38 | 56 | LM 10 |
| 21 $\begin{matrix} 0 \\ -0.013 \end{matrix}$ | 30 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 23 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 1.3 | 20 | 1.5 | 8 | 80° | — | 12 | -5 | 42 | 61 | LM 12 |
| 23 | 32 | 23 | 1.3 | 22 | 1.5 | 9 | 80° | — | 12 | -7 | 52 | 79 | LM 13 |
| 28 | 37 | 26.5 | 1.6 | 27 | 1.5 | 11 | 80° | — | 12 | -7 | 79 | 120 | LM 16 |
| 32 $\begin{matrix} 0 \\ -0.016 \end{matrix}$ | 42 | 30.5 | 1.6 | 31 | 1.5 | 11 | 60° | — | 15 | -9 | 88 | 140 | LM 20 |
| 40 | 59 | 41 | 1.85 | 38 | 2 | 12 | 50° | — | 15 | -9 | 100 | 160 | LM 25 |
| 45 | 64 | 44.5 | 1.85 | 43 | 2.5 | 15 | 50° | — | 15 | -9 | 160 | 280 | LM 30 |
| 52 $\begin{matrix} 0 \\ -0.019 \end{matrix}$ | 70 $\begin{matrix} 0 \\ -0.3 \end{matrix}$ | 49.5 $\begin{matrix} 0 \\ -0.3 \end{matrix}$ | 2.1 | 49 | 2.5 | 17 | 50° | — | 20 | -13 | 170 | 320 | LM 35 |
| 60 | 80 | 60.5 | 2.1 | 57 | 3 | 20 | 50° | — | 20 | -13 | 220 | 410 | LM 40 |
| 80 $\begin{matrix} 0 \\ -0.022 \end{matrix}$ | 100 | 74 | 2.6 | 76.5 | 3 | 25 | 50° | — | 20 | -13 | 290 | 810 | LM 50 |
| 90 | 110 | 85 | 3.15 | 86.5 | 3 | 30 | 50° | — | 25 | -16 | 480 | 1020 | LM 60 |



BAO DING

LINEAR MOTION BALL BEARINGS

Bearings India

Call 98-200-63633
or 022- 32994523



尺寸参数

Specification

特殊系列 Specisl series

LME

| Nominal Part No. | | | | | | Nominal Shaft Diameter(mm) |
|------------------|-----------|--------------|------------|-----------------|-----------|---|
| Standard | Seal Type | Ball Circuit | Weight grf | Adjustable Type | Open Type | Tolerance |
| LME 5 | LME 5UU | 3 | 11 | LME 5-AJ | LME 12-OP | 5 $\left[\begin{array}{l} +0.008 \\ 0 \end{array} \right]$ |
| LME 8 | LME 8UU | 4 | 20 | LME 8-AJ | | 8 $\left[\begin{array}{l} +0.008 \\ 0 \end{array} \right]$ |
| LME 12 | LME 12UU | 4 | 41 | LME 12-AJ | | 12 $\left[\begin{array}{l} +0.008 \\ 0 \end{array} \right]$ |
| LME 16 | LME 16UU | 5 | 57 | LME 16-AJ | LME 16-OP | 16 $\left[\begin{array}{l} +0.009 \\ -0.001 \end{array} \right]$ |
| LME 20 | LME 20UU | 5 | 91 | LME 20-AJ | LME 20-OP | 20 $\left[\begin{array}{l} +0.009 \\ -0.001 \end{array} \right]$ |
| LME 25 | LME 25UU | 6 | 215 | LME 25-AJ | LME 25-OP | 25 $\left[\begin{array}{l} +0.011 \\ -0.001 \end{array} \right]$ |
| LME 30 | LME 30UU | 6 | 325 | LME 30-AJ | LME 30-OP | 30 $\left[\begin{array}{l} +0.013 \\ -0.002 \end{array} \right]$ |
| LME 40 | LME 40UU | 6 | 705 | LME 40-AJ | LME 40-OP | 40 $\left[\begin{array}{l} +0.013 \\ -0.002 \end{array} \right]$ |
| LME 50 | LME 50UU | 6 | 1130 | LME 50-AJ | LME 50-OP | 50 $\left[\begin{array}{l} +0.013 \\ -0.002 \end{array} \right]$ |
| LME 60 | LME 60UU | 6 | 2220 | LME 60-AJ | LME 60-OP | 60 $\left[\begin{array}{l} +0.013 \\ -0.002 \end{array} \right]$ |

LINEAR MOTION BALL BEARINGS

Bearings India

Call 98-200-63633
or 022- 32994523



LME

LME - AJ

LME - OP

| Major Dimensions and Tolerance (mm) | | | | | | | | Eccentricity (max) μm | Radial Clearance (max) μm | Basic load Rating C Co Kgf | Nominal part No. |
|--|--|--|------|------|-----|------|-----|--|---|-------------------------------------|---------------------|
| D Tolerance | L Tolerance | B Tolerance | W | D1 | h | h10 | | | | | |
| 12 $\begin{matrix} 0 \\ -0.008 \end{matrix}$ | 22 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 14.5 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 1.1 | 11.5 | 1 | | | 12 | -5 | 21 27 | LME 5 |
| 16 $\begin{matrix} 0 \\ -0.008 \end{matrix}$ | 25 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 16.5 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 1.1 | 15.2 | 1 | | | 12 | -5 | 27 41 | LME 8 |
| 22 $\begin{matrix} +0.013 \\ -0.002 \end{matrix}$ | 32 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 22.9 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 1.3 | 21 | 1.5 | 7.5 | 78° | 12 | -7 | 52 79 | LME 12 |
| 26 $\begin{matrix} 0 \\ -0.002 \end{matrix}$ | 36 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 24.9 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 1.3 | 24.9 | 1.5 | 10 | 78° | 12 | -7 | 59 91 | LME 16 |
| 32 $\begin{matrix} +0.013 \\ -0.002 \end{matrix}$ | 45 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 31.5 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 1.6 | 30.3 | 2 | 10 | 60° | 15 | -9 | 88 140 | LME 20 |
| 40 $\begin{matrix} +0.013 \\ -0.002 \end{matrix}$ | 58 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 44.1 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 1.85 | 37.5 | 2 | 12.5 | 60° | 15 | -9 | 100 160 | LME 25 |
| 47 $\begin{matrix} 0 \\ -0.002 \end{matrix}$ | 68 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 52.1 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 1.85 | 44.5 | 2 | 12.5 | 50° | 15 | -9 | 160 280 | LME 30 |
| 62 $\begin{matrix} +0.013 \\ -0.002 \end{matrix}$ | 80 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 60.6 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 2.15 | 59 | 3 | 16.5 | 50° | 17 | -13 | 220 410 | LME 40 |
| 75 $\begin{matrix} +0.013 \\ -0.002 \end{matrix}$ | 100 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 77.6 $\begin{matrix} 0 \\ -0.2 \end{matrix}$ | 2.65 | 72 | 3 | 21 | 50° | 17 | -13 | 390 810 | LME 50 |
| 90 $\begin{matrix} +0.013 \\ -0.002 \end{matrix}$ | 125 $\begin{matrix} 0 \\ -0.4 \end{matrix}$ | 101.7 $\begin{matrix} 0 \\ -0.4 \end{matrix}$ | 3.15 | 86.5 | 3 | 27.2 | 54° | 20 | -13 | 480 1020 | LME 60 |

安装与调整

Mounting and Adjusting

轴承压入轴承箱时，应采用专用安装工具压靠外圈端面，不允许随意敲打轴承，以免变形。工作轴的表面硬度要求不低於 HRC60~64。轴装入轴承中的时候应注意避免钢球碰伤。箱体轴承孔与轴中心的同轴度不稳定时，工作精度将显著降低。为了防止异物侵入，可以另外增加密封装置。间隙调整方法可参照图示。

For mounting the bearing into the housing seating, a special mounting tool should be used to give an even pressure on the side face of the bearing. In order to avoid deformation or damage, hammering at the bearing is not allowed.

Surface hardness of the shafts fitting with the bearings should not be lower than HRc 60-64.

When mounting the shaft into the bearing, be careful not to damage the balls.

Misalignment of the shafts will obviously spoil the working accuracy of the bearing arrangement.

If necessary, a sealing arrangement should be considered to prevent the bearing from contamination.

The radial clearance between the bearing and the shaft can be adjusted by reference to the methods shown in the adjacent figures.



安装方法
Bearing mounting



轴承的固定 Bearing fixing



间隙调整方法
Radial clearance adjusting

