



HENGLI²⁰¹⁵
automobile parts & bearing

让直线轴承无忧运行



B 公司简介 Brief introduction

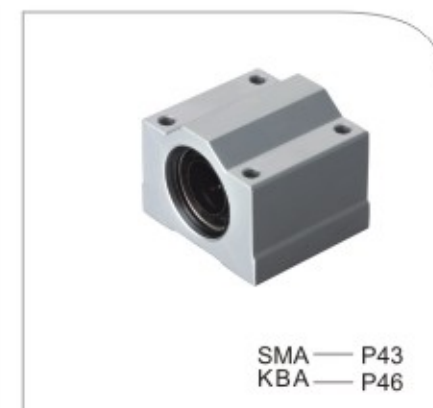
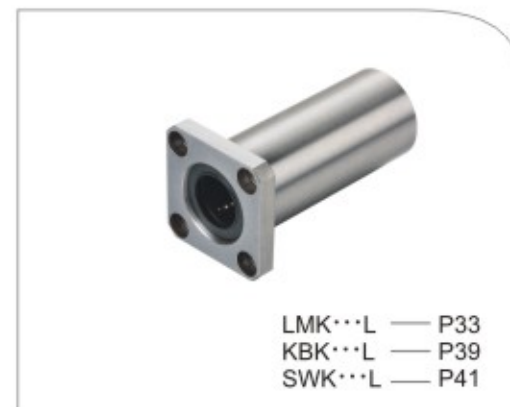
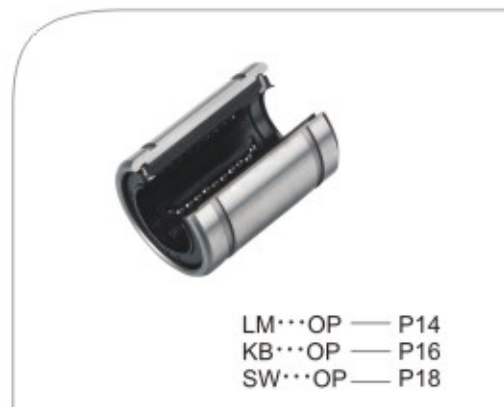
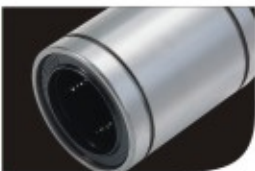
宁波恒力汽配轴承有限公司位于中国黄金海岸线上的港口城市——宁波市，是一家专业生产直线运动球轴承和相关直线运动系列产品的企业，公司本着“以精立业，以质取胜，创恒力品牌，保用户满意”为企业精神，全面推行现代化管理模式。

为追求更高品质要求，严格按公司质量方针“让直线轴承无忧运行”的目标贯彻实施，并通过了ISO9001:2000质量管理体系认证，使企业的质量管理走上了规范化、程序化、文件化的轨道。同时公司不断引进先进的自动化专用制造设备和高精度轴承检测仪器，广纳轴承行业的专业技术人才，致力于新产品开发研制，从而形成了从设计制造到开发服务的完整生产经营体系，在国内同行业中质量处于领先地位。目前已成为中国专业生产直线运动球轴承的主要企业，拥有多项国家专利。

Located in the economy developed coastal city of Ningbo, Ningbo Hengli Automobile Parts and Bearings Co., Ltd. is an enterprise specializing in the production of linear ball bearings and related linear-movement product series. The company practices modern corporate management practices in all respects with a corporate spirit of sophisticated technology, excellent quality, establishing brand and ensuring customer satisfaction.

To pursue higher quality, the company strictly implements the quality strategy of producing trouble-free linear bearings. It has obtained ISO9001:2000 quality system certification so that the corporate quality management is guided to a standard, systematic and documented operation track. Meanwhile, the company constantly introduces advanced automatic manufacturing equipment and test apparatus for high-precision bearings. Professionals and technicians in the bearing industry are attracted to work on the research and development of new products. As a result, the company has developed a complete production and management system encompassing design, manufacturing developing and serving and takes a leading position among domestic peers in terms of quality. Currently, the company is a major manufacturer of linear ball bearings in China.







KBB — P50



KBB...AJ — P50



KBB...OP — P51



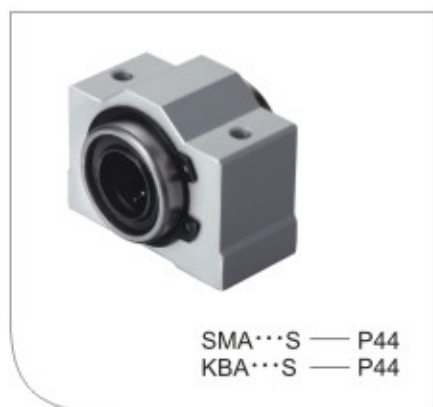
SWB...OP — P57



SWB...L-OP — P58



SWD — P59



SMA...S — P44
KBA...S — P44



SMA...L — P45
KBA...L — P45



SME — P48
KBE — P48



SWD...L — P60



SK — P61
PA — P62
SKW — P63



SHF — P64



TBR — P47



SME...L — P49



SWA — P53



S — P65
SI — P65



SP — P66



SBR — P67
STBR — P68
SBR...B — P68



SWA...L — P54



SWB — P55



SWB...L — P56



SLM — P24
SKB — P25
SSW — P26



SLM...OP — P24
SKB...OP — P25
SSW...OP — P26



钢保持器 LM(m) — P14
KB(m) — P16
SW(m) — P18



直线运动产品的选择和使用

直线轴承的套圈（除KH系列）和钢球有GCr15(SUJ2)轴承钢和9Cr18(SUS440C)不锈钢二种材质；保持器有POM工程塑料、低碳钢、不锈钢三种材质；密封圈由NBR丁腈橡胶制成；无密封之铁盖有65Mn弹簧钢和不锈钢二种材质；KH系列套圈由低碳钢经碳氮共渗制成。

直线轴由GCr15(SUJ2)轴承钢制成，根据客户需要也可制作碳钢和不锈钢直线轴。

轴承座、轴支撑座和轴支轨由拉伸铝合金制成。

自润轴承内装黄铜衬套，衬套上镶嵌(或涂覆)固体润滑材料，在无油状态下使用，尺寸可直接和直线轴承互换。

恒力自动化模组(滑台)可按客户需要制作，导轨有圆轴导轨、直线导轨二种形式；传动有滚珠丝杠，同步带二种形式，可任意组合，按不同需求可配置步进(伺服)电机、电机控制器(控制卡)和数控装置。

直线轴承选择：POM工程塑料保持器适用于-20°C~80°C工作温度；钢保持器适用于-40°C~125°C工作温度；不锈钢轴承适合于水、蒸气、硝酸等腐蚀介质及真空工作场合，轴承型号按下述计算公式确定。

直线轴承安装：轴承座孔公差推荐采用H7、J7级，直线轴公差推荐采用g6、h6级，轴承安装必须用台阶芯轴压入(恒力法兰轴承法兰焊接强度全部经过200公斤油压测试，但猛力敲击法兰会造成法兰碎裂或脱焊)；直线轴安装必须对准轴承孔插入，动作轻缓，轴倾斜插入会导至保持器变形和钢球脱落，轴承安装方向应按照表1所示，可以提高轴承承载能力，延长寿命。轴承座孔有可能压缩轴承，引起游隙变小，此时用手转动直线轴，如果轴能接触钢球且能轻松转动，配合游隙为0~+0.01mm；如果稍加力才能转动，配合游隙为-0.01~0mm(已过盈)；如果加力也不能转动，配合游隙已多于0.01mm.这种情况钢球滚动时可能同时作滑动，会降低轴承和轴的使用寿命，只有在轻载、低速且定心要求高的情况下才可采用。

调整型、开口型轴承内、外径在割口前测量，割口后会有一些弹性变形，配合游隙应装入轴承座内测量(钢保持器轴承、KH轴承情况类似)。游隙可调节的轴承座调节方向应和轴承割口方向垂直以保证游隙均匀，直线轴承结构特点不能作旋转运动，同时要求有良好的导向性，所以直线轴承一般以二根轴+四套轴承或二根轴+二套加长型轴承为一个组合使用，二根轴安装要平直，整个组合装配后，用手推拉必须灵活无阻滞才可安装传动机构，传动动力要足够克服轴承摩擦阻力，直线轴承摩擦阻力近似为千分之一工作载荷。

直线轴承润滑和防尘：轴承出厂涂有防锈油，使用时需加润滑剂。油脂润滑噪音较低，常用的有2号锂基脂和低噪音轴承润滑脂，填脂前用煤油、汽油或其它有机溶剂清除防锈油，干燥后涂抹(直接填脂会使油脂损耗过快)，填脂量为保持器空隙的三分之一。油润滑不需清除防锈油，根据工作温度采用15#~100#润滑油，工作温度低采用低粘度油，工作温度高采用高粘度油，常用的有透平油，机械油和锭子油，无密封轴承把油滴在轴上即可，带密封轴承需把油加到轴承内，恒力公司为用户准备了带油孔的轴承和轴承座。对于一些不允许有油(脂)的工作场所，先清除防锈油，干燥后在每列钢球上喷一些市售的二硫化钼喷剂，再次干燥后即可使用，带密封轴承应避免密封圈和轴干摩擦引起密封圈唇口挤入轴承内，造成轴承的非预期损坏。

铁屑会极大地降低轴承寿命，粉尘和脏物会阻塞保持器球道，使钢球不能回转，引起保持器破损、钢球挤脱。带密封轴承可用于一般带粉尘工作场所，像木工机械、铸造机械等多粉尘场合，请在轴承两端另加密封，防止粉尘进入并可减少油脂损耗。



钢保持器 LM(m)···AJ — P14
KB(m)···AJ — P16
SW(m)···AJ — P18



钢保持器 LM(m)···OP — P14
KB(m)···OP — P16
SW(m)···OP — P18



PLM···自润轴承
尺寸同LM



PLMF···自润法兰轴承
尺寸同LMF



HLH···B — P69
HLH···BL — P69
HLS···B — P71
HLS···BS — P71



HLH···D — P74
HLH···DL — P74



HLH···A — P70
HLH···AL — P70
HLS···A — P72
HLH···AS — P72



HLH···C — P73
HLH···CL — P73



SF — P75
SFM — P76



BF — P78



BK — P79



Ts — P80



轴承的载荷和寿命：轴承运动和换向时承受过大的冲击负荷，或当轴承静止时，由于机器振动等因素都会使接触处形成凹坑。外界硬粒进入轴承内，也可在接触表面形成压痕，这种永久变形量超过一定限度，就会妨碍直线运动平稳性，引起振动和噪音，振动会进一步冲击凹坑周围材料，造成恶性循环，使凹坑面积扩大，这种永久变形量用基本额定静载荷限定。钢球和套圈接触点两者永久变形量之和等于钢球直径的万分之一的静载荷，定义为基本额定静载荷 C_0 。

轴承使用时，冲击力很难测定，常用选取适当的静载荷安全系统来保证轴承静载荷不超过基本额定静载荷。选型时使轴承承受的静载荷 $P_0 \leq C_0/F_s$ ，不受振动和冲击工作场合 F_s 取1.0~1.5，受振动和冲击工作场合 F_s 取2.0~7.0。

轴承由于反复承受工作载荷，首先在表面下一定深度处，强度较弱部分形成裂纹，继而发展到接触表面，使金属成片状剥落下来，这种剥落称为疲劳剥落。在安装、润滑、密封正常的情况下，绝大多数轴承的破坏是疲劳破坏，一般所说的轴承寿命就是指轴承的疲劳寿命。直线轴承额定寿命规定为5万米，通过限定基本额定动载荷 C 来保证。由于轴承寿命具有分散性，即同一批材料、相同工艺生产、相同使用条件下的轴承寿命不相同，所以轴承基本额定动载荷 C 定义为一批相同的轴承在相同条件下运行5万米，轴承不发生任何疲劳剥落现象所能承受的动载荷。

轴承使用寿命计算：

$$\text{长度寿命 } L = 5 * [(F_H * F_T * F_c / F_w) * (C / P_c)]^3 \quad (\text{单位：10Km万米})$$

基本额定动载荷 C (单位：kg公斤)：

工作行程短于轴承长度1.5倍时，轴寿命比轴承寿命短，当行程为0.2~1.5倍轴承长度时，额定动载荷按原来的0.4~1.0倍计算。开口型轴承侧面受力(侧装)和承受开口方向力(倒装)时额定动载荷按原来的三分之一计算。

工作载荷 P_c (单位：kg公斤)，计算方法见表2。

C/P_c 称为载荷比。

硬度系数 F_H ：硬度HRC58以上， $F_H=1.0$ ；硬度HRC52~58， $F_H=0.6\sim1.0$ 。

温度系数 F_T ：工作温度小于100°C， $F_T=1.0$ ；工作温度100°C~125°C， $F_T=1.0\sim0.95$ 。

接触系数 F_c ：

- 每根轴装一套轴承， $F_c=1.0$
- 每根轴装二套轴承， $F_c=0.81$
- 每根轴装三套轴承， $F_c=0.72$
- 每根轴装四套轴承， $F_c=0.66$

载荷系数 F_w ：

- 运行速度小于15米/分钟，无冲击、无振动， $F_w=1.0\sim1.5$ 。
- 运行速度小于60米/分钟，微小冲击或振动， $F_w=1.5\sim2.0$ 。
- 运行速度大于60米/分钟，或有较大冲击、振动， $F_w=2.0\sim5.0$ 。

时间寿命 $L_h = (10000 * L) / (2 * L_s * n_1 * 60)$ (单位：h小时)

- L ：长度寿命 (万米)，
- L_s ：工作行程 (米)，
- n_1 ：每分钟往复次数。

轴承型号选择举例：

某机器采用二轴+四轴承结构，行程 $L_s=0.2$ 米，工作温度60°C，每分钟往复次数 $n_1=20$ ，微小冲击，轴承工作载荷 $P_c=12$ 公斤，硬度大于HRC60，期望寿命 $L_h=5000$ 小时，试选择轴承型号。

按以上工作条件：

$$F_H=1.0, F_T=1.0, F_c=0.81$$

运行速度 $V=2 * 0.2 * 20=8$ (米/分钟)，微小冲击，取 $F_w=1.6$

$$\text{时间寿命 } L_h = (10000 * L) / (2 * L_s * n_1 * 60) = (10000 * L) / (2 * 0.2 * 20 * 60) = 20.83 * L = 5000 \quad (\text{小时})$$

计算得：长度寿命 $L=240$ 万米。

$$L = 5 * [(F_H * F_T * F_c / F_w) * (C / P_c)]^3 = 5 * [(1.0 * 1.0 * 0.81 / 1.6) * (C / 12)]^3 = 240$$

计算得： $C=86.5$ 公斤，查表选择LM20轴承， $C=88$ 公斤。

按表三核校轴挠度，如果不能满足机器刚性要求，应选择更大规格轴承或采用带轴支轨结构。

直线轴承相关标准：

国际标准：

- ISO10285：2007《Rolling bearings,linear motion,recirculating ball,sleeve type-Metric series》
- ISO14728-1:2004《Rolling bearings,linear motion rolling bearings-part 1:Dynamic load ratings and rating life》
- ISO14728-2:2004《Rolling bearings,linear motion rolling bearings-part 2:Static load ratings》

国家标准：

GB/T16940-1997《直线运动支承、直线运动球轴承-外形尺寸和公差》(等效于ISO10285:1992)

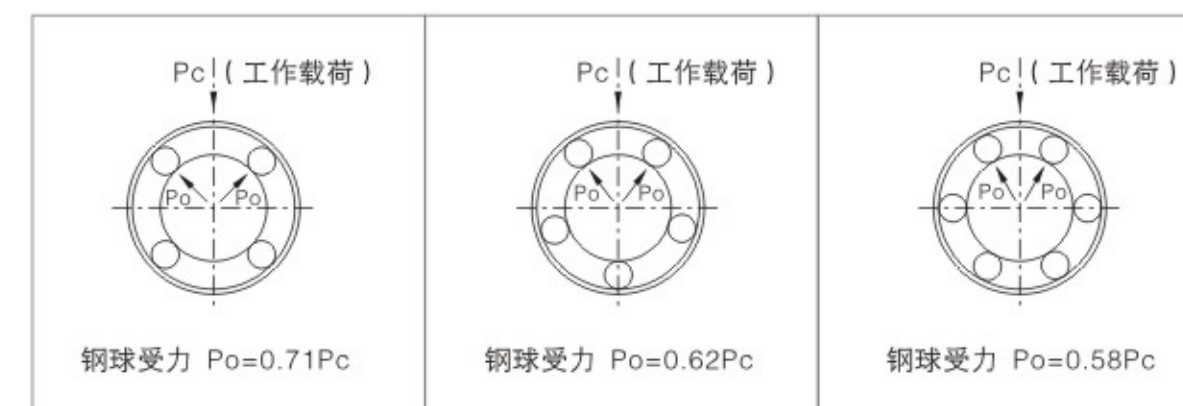
机械行业标准：

JB/T5388-1999《直线运动球轴承 技术条件》

恒力企业标准：

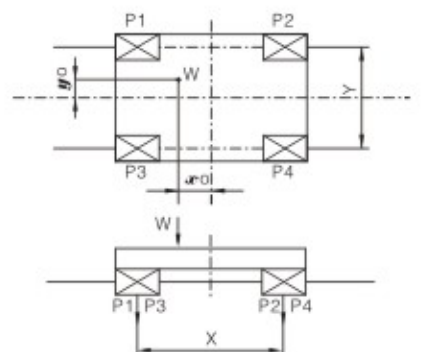
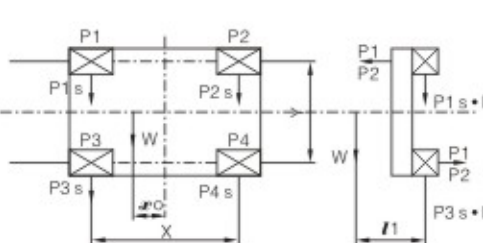
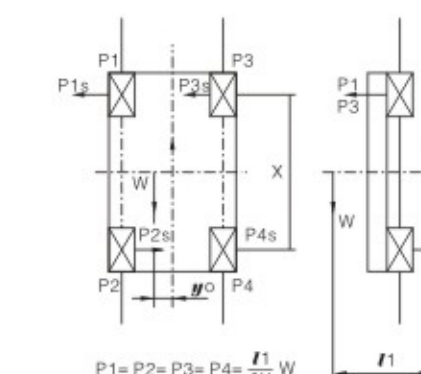
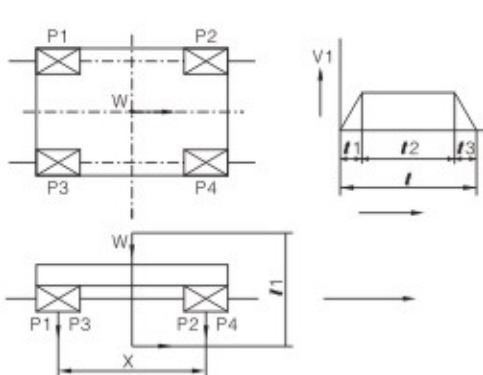
- Q/HL403-2000《直线运动球轴承 磨加工技术条件》
- Q/HL404-2000《直线运动球轴承 车加工技术条件》

表一 轴承安装方向

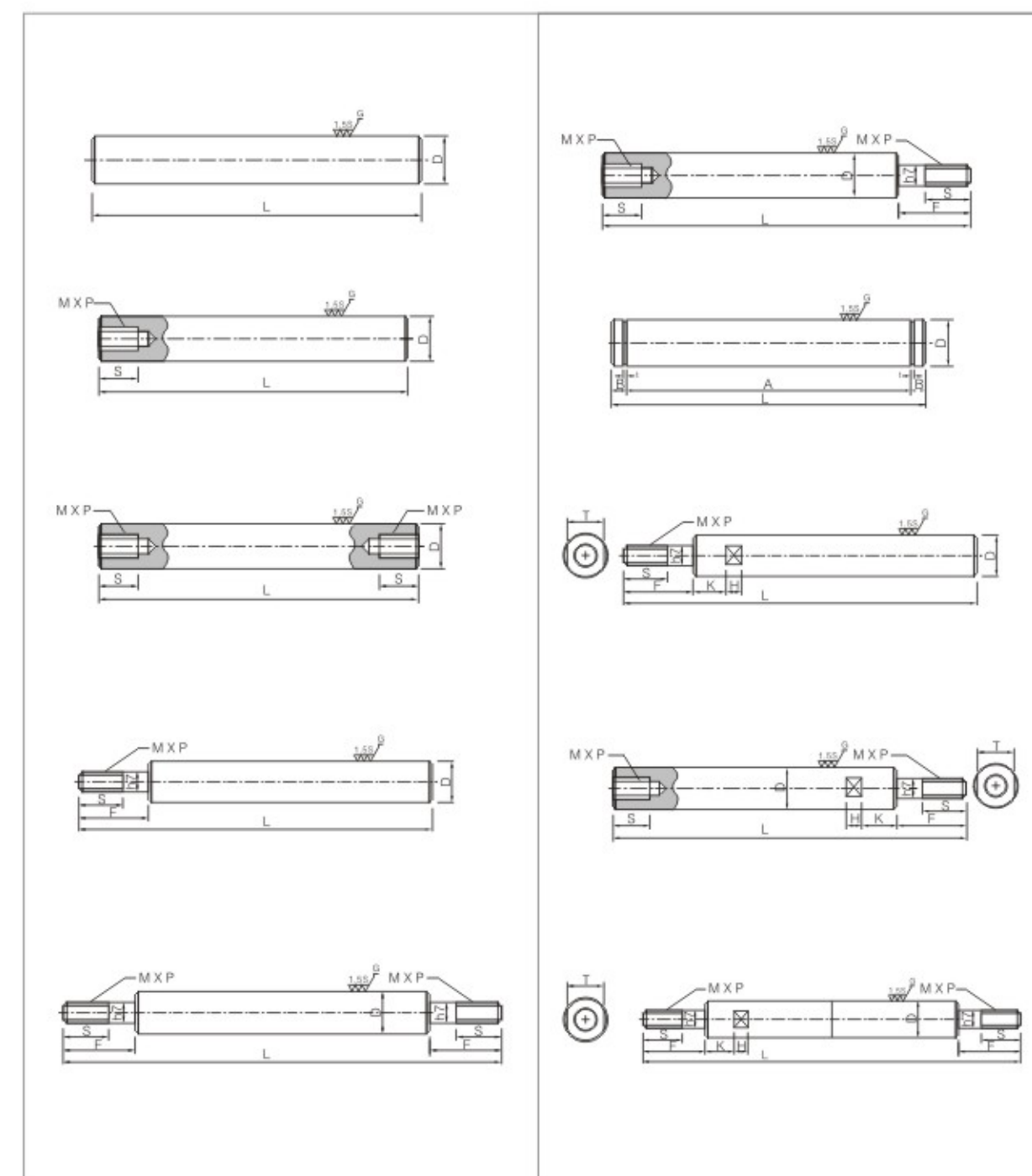




表二 工作载荷计算

型号 Type	运转条件 Operating conditions	型号 Type	运转条件 Operating conditions
1	 $P1 = \frac{1}{4}W + \frac{x_0}{2X}W + \frac{y_0}{2Y}W$ $P2 = \frac{1}{4}W - \frac{x_0}{2X}W + \frac{y_0}{2Y}W$ $P3 = \frac{1}{4}W + \frac{x_0}{2X}W - \frac{y_0}{2Y}W$ $P4 = \frac{1}{4}W - \frac{x_0}{2X}W - \frac{y_0}{2Y}W$	3	 $P1 = P2 = P3 = P4 = \frac{l_1}{2X}W$ $P1s = P3s = \frac{1}{4}W + \frac{y_0}{2X}W$ $P2s = P4s = \frac{1}{4}W - \frac{y_0}{2X}W$
2	 $P1 = P2 = P3 = P4 = \frac{l_1}{2X}W$ $P1s = P2s = P3s = P4s = \frac{y_0}{2X}W$	4	 $P1 = P3 = \frac{1}{4}W \left(1 + \frac{2V1 \cdot l1}{g \cdot l1 X} \right)$ $P2 = P4 = \frac{1}{4}W \left(1 - \frac{2V1 \cdot l1}{g \cdot l1 X} \right)$ $P1 = P3 = \frac{1}{4}W \left(1 - \frac{2V1 \cdot l1}{g \cdot l3 X} \right)$ $P2 = P4 = \frac{1}{4}W \left(1 + \frac{2V1 \cdot l1}{g \cdot l3 X} \right)$ $P1 = P2 = P3 = P4 = \frac{1}{4}W$ <p>$g = 9.8 \times 10^3 \text{ mm/sec}^2$</p>

表三 轴心加工图范例



另可依图面代客加工



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.

Rating Life

Rating Life of the Linear 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 system. The life of the system varies even for the system of the same dimensions, 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, the rating life defined below 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)

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

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:

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

L: Rating life (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:

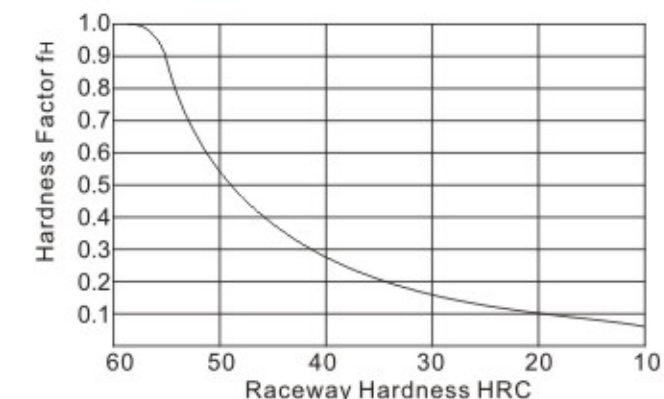
$$L_h = \frac{L \cdot 10^3}{2 \ell_s \cdot n_1 \cdot 60}$$

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

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.

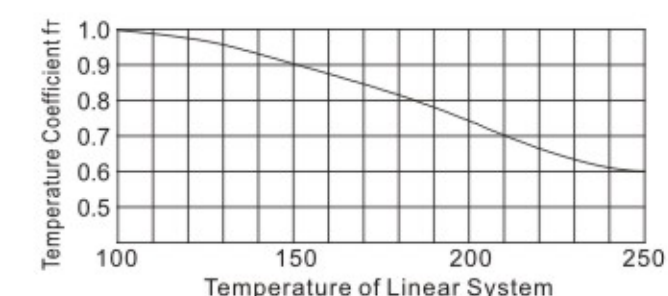
Fig. 1 Hardness Factor



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.

Fig. 2 Temperature Coefficient



Contact Coefficient (fc)

Generally two or more linear bushing 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 bushing per shaft changes the permissible load of the system.

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

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.

Table 3 Load Coefficient

Operating Conditions	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



Frictional Resistance

The static frictional resistance of the HL 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 HL 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 HL linear system depends on the model. Consult HL on use outside the recommended temperature range.

Temperature conversion equation

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

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

Lubrication and Dust Prevention

Using HL linear system without lubrication increases the abrasion of the rolling elements, shortening the life span. The HL linear systems therefore require appropriate lubrication. For lubrication HL recommends turbine oil conforming to ISO Standards G32 to G68 or lithium base soap grease NO.2. Some HL 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.

The frictional resistance of each HL linear system depends on the model, load weight, speed, and lubricant. The sealing resistance depends on the lip interference and lubricant, 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	LM KB SW	0.002 to 0.003

Table 6 Ambient Working Temperature

Linear System Type	Models	Ambient Working Temperature
Linear Bushing	LM KB SW	-20 to 80 °C
Linear Bushing	LM(m) KB(m) SW(m)	-20 to 120 °C

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) f_H : Hardness factor(See page5)
 C: Basic dynamic load rating(N) f_T : Temperature coefficient(See page5)
 P: Working load(N) f_C : Contact coefficient(See page5)
 f_W : Load coefficient

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:

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

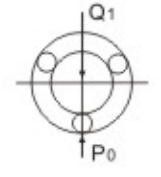
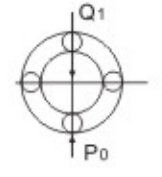
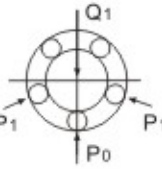
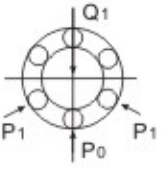
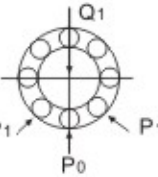
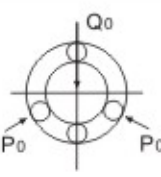
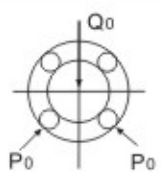
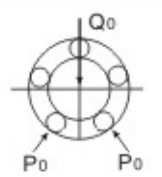
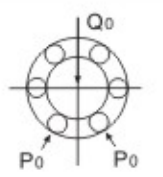
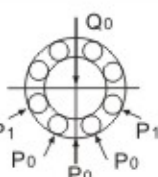
L_n : Lifespan(hr) S: Stroke length(m)
 L: Rated life(km) n_1 : Number of strokes per minute(cpm)

Relation between ball Circuits and load rating

The HL 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 HL linear bushing is used while 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.

Table1

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					
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_h of the HL linear bushing used in following conditions:

Linear bushing :	LM 20
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_h is obtained as follows:

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

Clearance and Fit

When a standard-type HL linear bushing is used with a shaft, inadequate clearance, adjustment may cause early bush failure and/or poor, rough travelling. The clearance adjusted when assembled in the housing which can control the outside cylinder diameter. However, too much clearance adjustment increases the deformation

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:

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

From equation (2), the basic dynamic load rating is obtained as follows:

$$C = \sqrt[3]{\frac{882}{490} \cdot \left(\frac{f_W}{f_H \cdot f_T \cdot f_C} \right) \cdot P} = 1492 \text{ N}$$

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

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

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

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:

Division		Shaft		Housing	
		Normal fit	Transitional	Loose fit	Tight fit
LM	High class	g6	h6	H7	J7
SM					
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 HL linear bushing high precision of the shaft and housing is required.

1. Shaft

The rolling balls in the HL 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 1.5S or better

2) The nest 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.

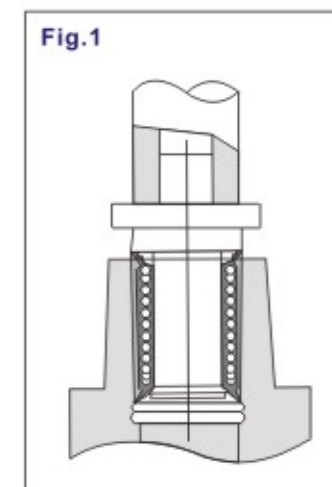
2. Housing

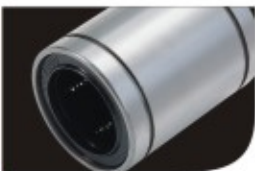
There is a wide range of housing differing in design, machining and mounting. For the fitness and shapes of housings, see Table 2 and the following section on mounting.

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)

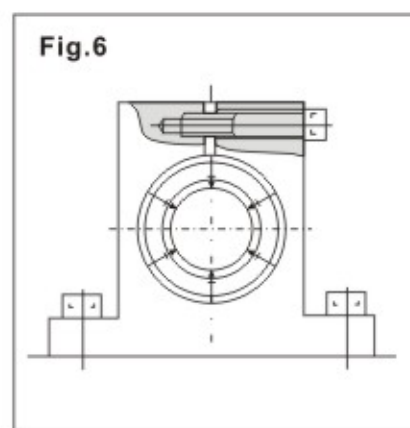
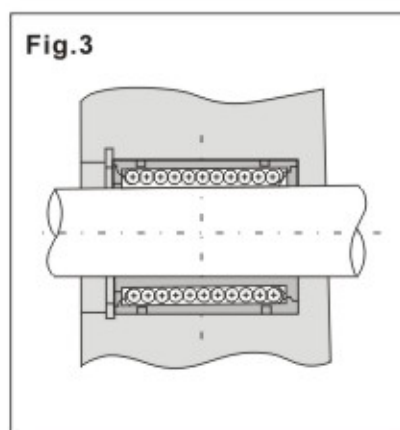
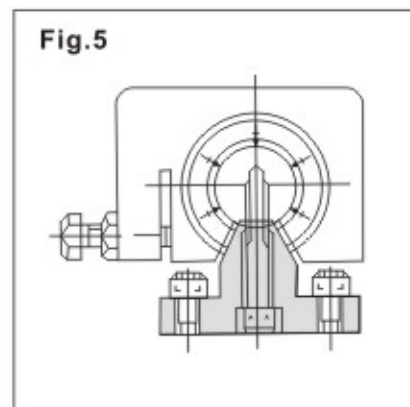
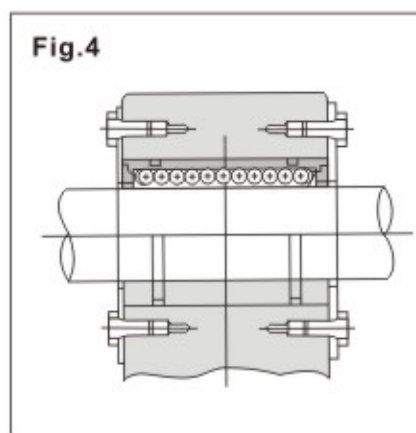
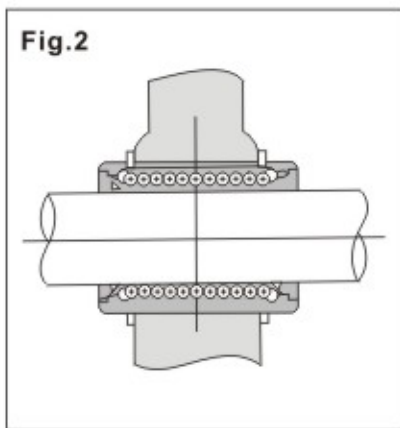
In inserting the shaft after mounting the bush, be careful not to shock the balls. Note that if two shafts are used in parallel, the parallelism is the most important factor to assure the smooth linear movement. Take care setting the shafts.

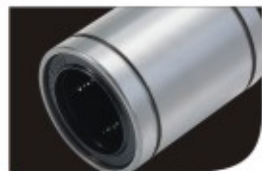




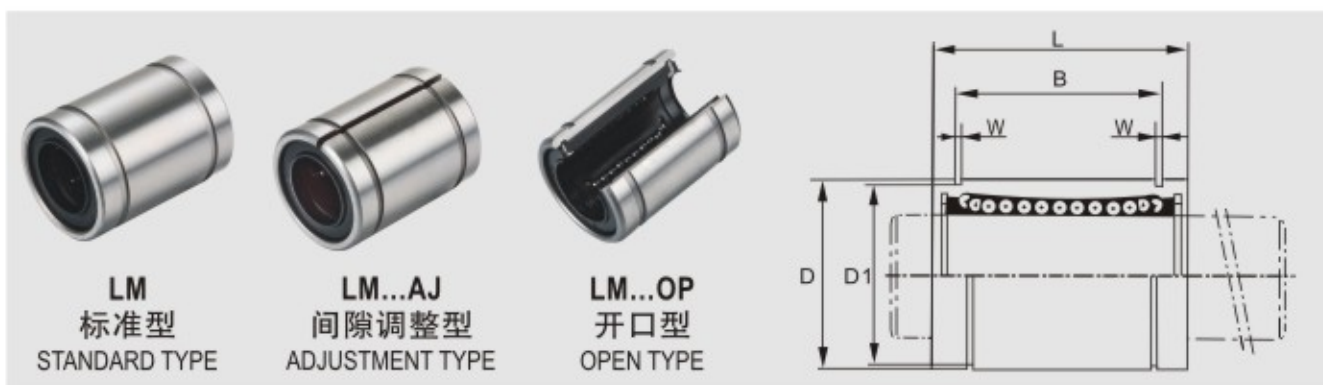
Examples of Mounting

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.





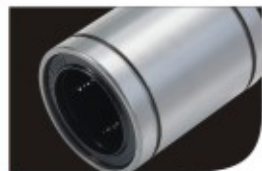
LM直线轴承
 LM Linear bearing
 亚洲系列
 Asia series



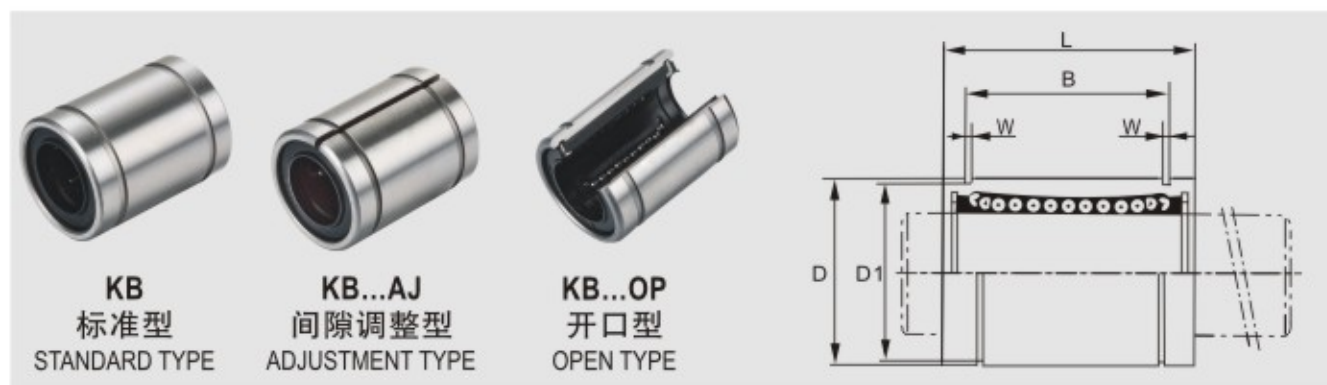
型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS					
						内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH	
						dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE
LM3	4				3		7		10		
LM4	4				4	0 -0.008	8	0 -0.009	12	0 -0.12	
LM5	4				5		10		15		
LM6	4	LM6AJ	4		6		12	0 -0.011	19		
LM8S	4	LM8SAJ	4		8		15	0 -0.011	17		
LM8	4	LM8AJ	4		8		15		24		
LM10	4	LM10AJ	4	LM10OP	3	10	19	0 -0.009	29	0 -0.20	
LM12	4	LM12AJ	4	LM12OP	3	12	21	0 -0.013	30		
LM13	4	LM13AJ	4	LM13OP	3	13	23	0 -0.013	32		
LM16	5	LM16AJ	5	LM16OP	4	16	28		37		
LM20	5	LM20AJ	5	LM20OP	4	20	32		42		
LM25	6	LM25AJ	6	LM25OP	5	25	40	0 -0.010	59		
LM30	6	LM30AJ	6	LM30OP	5	30	45		64		
LM35	6	LM35AJ	6	LM35OP	5	35	52		70	0 -0.30	
LM40	6	LM40AJ	6	LM40OP	5	40	60	0 -0.012	80		
LM50	6	LM50AJ	6	LM50OP	5	50	80		100		
LM60	6	LM60AJ	6	LM60OP	5	60	90	0 -0.015	110		

主要尺寸 MAIN DIMENSIONS							径向跳动 ECCENTRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (g)		
外止动槽 OUTER LOCKING GROOVE			W	h	h1	θ		动 DYNAMIC C(kgf)	静 STATIC Co(kgf)			
B	公差 TOLERANCE	D1										
							0.008	7	11			
								9	13	3		
10.2		9.6	1.1					17	21	4		
13.5		11.5	1.1	1				21	27	6	6	
11.5		14.3	1.1	1				18	23	9		
17.5		14.3	1.1	1				27	41	14	14	
22	0 -0.20	18	1.3	1	6.8	80°	0.012	38	56	28	27	
23		20	1.3	1.5	8	80°		42	61	32	31	24
23		22	1.3	1.5	9	80°		52	79	38	39	32
26.5		27	1.6	1.5	11	80°		79	120	74	73	58
30.5		30.5	1.6	1.5	11	60°		88	140	80	80	72
41		38	1.85	2	12	50°	0.015	100	160	206	205	177
44.5		43	1.85	2.5	15	50°		160	220	240	230	196
49.5	0 -0.30	49	2.1	2.5	17	50°		170	320	370	366	320
60.5		57	2.1	3	20	50°	0.020	220	410	589	549	464
74		76.5	2.6	3	25	50°		390	810	1480	1440	1180
85		86.5	3.15	3	30	50°	0.025	480	1020	1750	1740	1700

注：工程塑料保持器，金属(钢)保持器，不锈钢系列，自润滑系列尺寸图。
 Annotate: POM retainer, Steel retainer, stainless steel type, oilless series is the same.



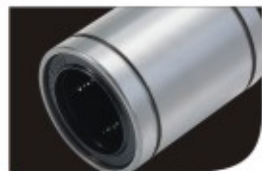
KB直线轴承
 KB Linear bearing
 欧洲系列
 Europe series



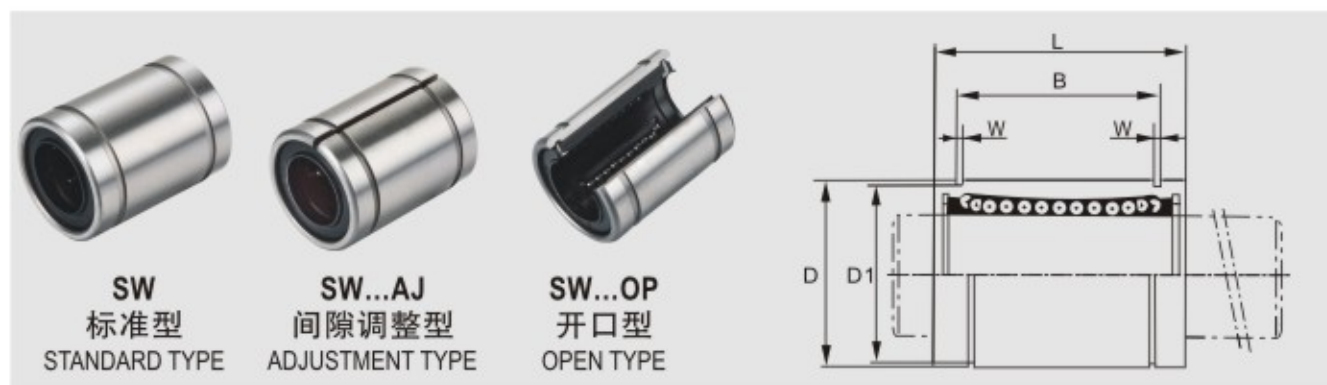
型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS					
						内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH	
						dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE
KB3	4				3		7		10	0	
KB4	4				4		8	0	12	-0.12	
KB5	4	KB5AJ	4		5	+0.008	12	-0.008	22		
KB8	4	KB8AJ	4		8	0	16		25		
KB10	4	KB10AJ	4	KB10OP	3		19	0	29	0	
KB12	4	KB12AJ	4	KB12OP	3		22	-0.009	32	-0.20	
KB16	5	KB16AJ	5	KB16OP	4		26	+0.009	36		
KB20	5	KB20AJ	5	KB20OP	4		32	-0.001	45		
KB25	6	KB25AJ	6	KB25OP	5		40	0	58		
KB30	6	KB30AJ	6	KB30OP	5		47	-0.011	68	0	
KB40	6	KB40AJ	6	KB40OP	5		62	0	80	-0.30	
KB50	6	KB50AJ	6	KB50OP	5		75	-0.013	100		
KB60	6	KB60AJ	6	KB60OP	5		90	0	125	0	
								-0.015		-0.40	

主要尺寸 MAIN DIMENSIONS							径向 跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (g)		
外止动槽 OUTER LOCKING GROOVE		W	h	h1	θ	D1		动 DYNAMIC C(kgf)	静 STATIC Co(kgf)			
B	公差 TOLERANCE											
							0.010	7	11			
								9	13			
14.5		11.5	1.1	1			0.012	21	27	14		
16.5		15.2	1.1	1				27	41	20	20	
22	0	18	1.3	1.5	6.8	80°		38	47	30	29	22.5
22.9	-0.20	21	1.3	1.5	7.5	78°		52	79	40	39	35
24.9		24.9	1.3	1.5	10	78°		59	91	50	49	38
31.5		30.3	1.6	2	10	60°	88	140	90	88	72	
44.1		37.5	1.85	2	12.5	60°	0.015	100	160	207	205	173
52.1	0	44.5	1.85	2	12.5	50°		160	280	320	319	267
60.6	-0.30	59	2.15	3	16.8	50°		220	400	674	650	558
77.6		72	2.65	3	21	50°		390	810	1170	1160	990
101.7	0	86.5	3.15	3	27.2	54°		480	1020	1950	1910	1700
	-0.40						0.020					

注：工程塑料保持器，金属(钢)保持器，不锈钢系列，自润滑系列尺寸图。
 Annotate: POM retainer, Steel retainer, stainless steel type, oilless series is the same.



SW直线轴承
 SW Linear bearing
 英制系列
 Inch system series



型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS					
						内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH	
						dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE
SW4	4	SW4AJ	4			1/4" 6.35	0 -0.009	0.5" 12.7	0 -0.011	0.75" 19.05	0 -0.20
SW6	4	SW6AJ	4		3/8" 9.525	0.625" 15.875		0 -0.013	0.875" 22.225	0 -0.20	
SW8	4	SW8AJ	4	SW8OP	3	1/2" 12.7			0.875" 22.225		
SW10	4	SW10AJ	4	SW10OP	3	5/8" 15.875		1.125" 28.575	1.5" 38.1		
SW12	5	SW12AJ	5	SW12OP	4	3/4" 19.05	0 -0.010	1.25" 31.75	0 -0.016	1.625" 41.275	0 -0.30
SW16	6	SW16AJ	6	SW16OP	5	1" 25.4		1.5625" 39.688	2.25" 57.15		
SW20	6	SW20AJ	6	SW20OP	5	1-1/4" 31.75	0 -0.012	2" 50.8	0 -0.019	2.625" 66.675	0 -0.30
SW24	6	SW24AJ	6	SW24OP	5	1-1/2" 38.1		2.375" 60.325	3" 76.2		
SW32	6	SW32AJ	6	SW32OP	5	2" 50.8	3" 76.2	0 -0.022	4" 101.6		

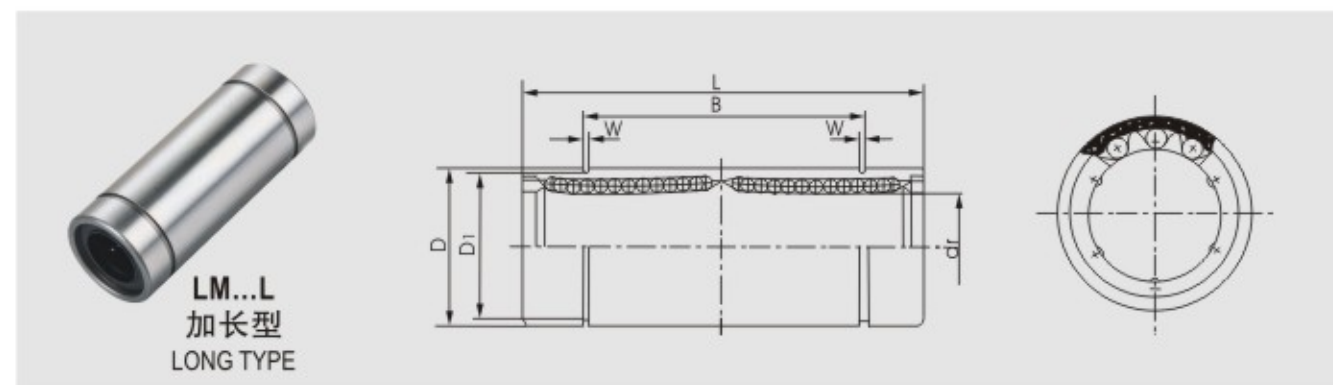
主要尺寸 MAIN DIMENSIONS						径向 跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (g)		
外止动槽 OUTER LOCKING GROOVE		W	h	h1	theta		动 DYNAMIC C(kgf)	静 STATIC Co(kgf)			
B	公差 TOLERANCE										D1
0.511" 12.98	0 -0.20	0.4687" 11.906	0.039" 0.992	0.04" 1	0.012	21	27	64	25		
0.6385" 16.15		0.588" 14.935	0.039" 0.992	0.04" 1		23	32	14			
0.9625" 24.46		0.8209" 20.853	0.0459" 1.168	0.06" 1.5		0.34" 7.9375	80°	52		80	40
1.1039" 28.04		1.059" 26.899	0.0559" 1.422	0.06" 1.5		0.375" 9.525	80°	79		120	76
1.1657" 29.61	0 -0.30	1.176" 29.87	0.0559" 1.422	0.06" 1.5	0.4375" 11.1125	60°	88	140	90	70	
1.7547" 44.57		1.4687" 37.306	0.0679" 1.727	0.06" 1.5	0.5625" 14.2875	50°	100	160	206	167.5	
2.0047" 50.92		1.8859" 47.904	0.0679" 1.727	0.10" 2.54	0.625" 15.875	50°	160	280	370	304	
2.4118" 61.26		2.2389" 56.87	0.859" 2.184	0.12" 3	0.75" 19.05	50°	220	410	584	490	
3.1917" 81.07		2.8379" 72.085	0.1029" 2.616	0.12" 3	1" 25.4	50°	0.025	390	810	600	980

注: SW16钢保持器球列数5列, 工程塑料保持器球列数6列。
 SW16AJ钢保持器球列数5列, 工程塑料保持器球列数6列。
 SW16OP钢保持器球列数4列, 工程塑料保持器球列数5列。

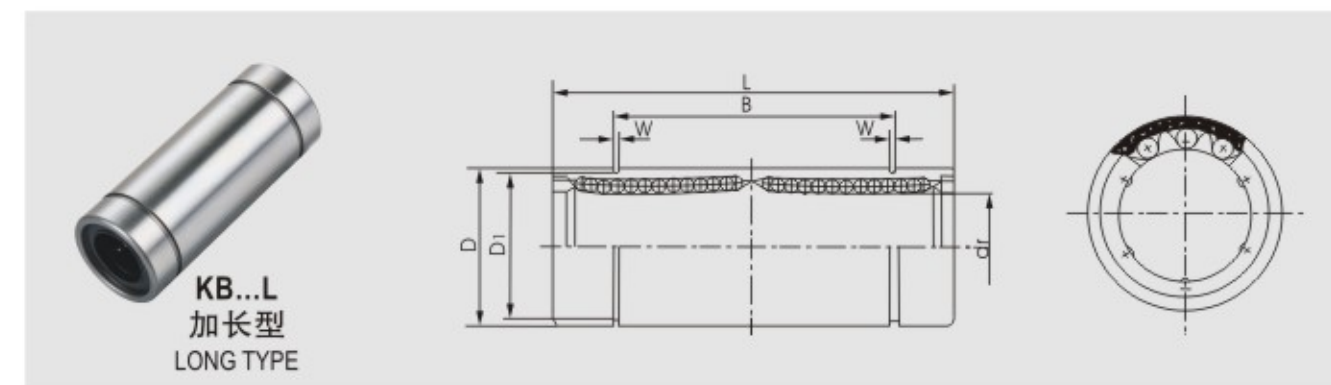
Annotate: SW16 steel retainer the number of ball rows is 5, POM retainer the number of ball rows is 6.
 SW16AJ steel retainer the number of ball rows is 5, POM retainer the number of ball rows is 6.
 SW16OP steel retainer the number of ball rows is 4, POM retainer the number of ball rows is 5.



LM加长型直线轴承
 LM Long type linear bearing
 亚洲系列
 Asia series



KB加长型直线轴承
 KB Long type linear bearing
 欧洲系列
 Europe series

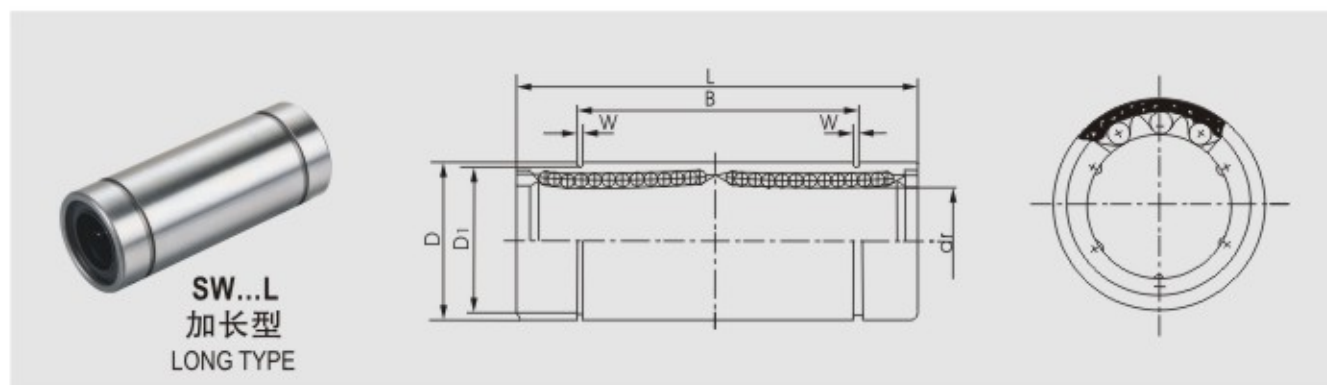


型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS									径向 跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (g)	
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		外止动槽 OUTER LOCKING GROOVE				W	动 DYNAMIC C(kgf)		静 STATIC Co(kgf)
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	B	公差 TOLERANCE	D1					
LM6L	4	6		12	0	35		27		11.5	1.1	33	54	14	
LM8L	4	8		15	-0.013	45		35		14.3	1.1	44	80	26	
LM10L	4	10	0	19		55		44		18	1.3	60	112	55	
LM12L	4	12	-0.010	21		57	0	46	0	20	1.3	83	160	58	
LM13L	4	13		23	-0.016	61	-0.30	46	-0.30	22	1.3	83	160	77	
LM16L	5	16		28		70		53		27	1.6	126	240	147	
LM20L	5	20		32		80		61		30.5	1.6	143	280	171	
LM25L	6	25	0	40	-0.012	112		82		38	1.85	159	320	400	
LM30L	6	30		45	-0.019	123		89		43	1.85	254	560	472	
LM35L	6	35		52		135		99		49	2.1	270	640	708	
LM40L	6	40	0	60	-0.015	151 (154)	0	121	0	57	2.1	350	820	1090	
LM50L	6	50		80	-0.022	192	-0.40	148	-0.40	76.5	2.6	620	1622	2800	
LM60L	6	60	0	90	-0.020	209		170		86.5	3-15	770	2040	3800	

型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS									径向 跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (g)	
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		外止动槽 OUTER LOCKING GROOVE				W	动 DYNAMIC C(kgf)		静 STATIC Co(kgf)
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	B	公差 TOLERANCE	D1					
KB8L	4	8		16	0	46		33		15.2	1.1	43	82	36	
KB10L	4	10	+0.009	19	-0.001	55		44		18	1.3	60	112	59	
KB12L	4	12		22	0	61	0	45.8	0	21	1.3	83	160	78	
KB16L	5	16	+0.011	26	-0.001	68		49.8	-0.30	24.9	1.3	94	182	97	
KB20L	5	20		32		80		61		30.5	1.6	140	280	169	
KB25L	6	25	+0.013	40	-0.002	112		82		38	1.85	160	320	414	
KB30L	6	30	-0.002	47		123		104.2	-0.40	44.5	1.85	255	560	586	
KB40L	6	40		62	0	151	0	121.2	0	59	2.15	350	820	1310	
KB50L	6	50	+0.016	75	-0.004	192	-0.40	155.2	-0.40	72	2.65	620	1622	2500	
KB60L	6	60		90	0	209		170		86.5	3.15	770	2040	3700	



SW加长型直线轴承
 SW Long type linear bearing
 英制系列
 Inch system series

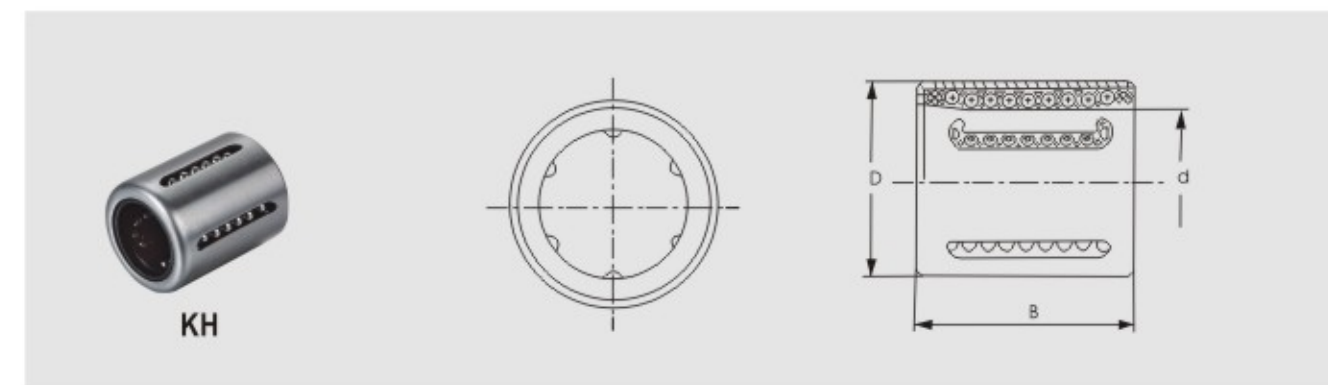


型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS										基本额定载荷 BASIC LOAD RATING			
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		外止动槽 OUTER LOCKING GROOVE				径向跳动 ECCENTRICITY (MAX.)	动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	重量 WEIGHT (g)
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	B	公差 TOLERANCE	D1	W				
SW4L	3	1/4" 6.35		0.5" 12.7	0-7 -0.013	1.375" 34.925		1.022" 25.959		0.4687" 11.906	0.039" 0.992	0.015	33	54	14
SW6L	4	3/8" 9.525		0.625" 15.875		1.5938" 40.481		1.2716" 32.298		0.588" 14.935	0.039" 0.992	0.015	36	64	30
SW8L	4	1/2" 12.7	0-7 -0.011	0.875" 22.225	0-7 -0.016	2.375" 60.325	0 -0.30	1.925" 48.895	0 -0.30	0.8209" 20.853	0.0459" 1.168	0.015	83	160	82
SW10L	4	5/8" 15.875		1.125" 28.575		2.8125" 71.438		2.2079" 56.08		1.059" 26.899	0.0559" 1.422	0.015	126	240	156
SW12L	5	3/4" 19.05	0-7 -0.012	1.25" 31.75	0-7 -0.019	3.0937" 78.581		2.3314" 59.218		1.176" 29.87	0.0559" 1.422	0.020	140	280	184
SW16L	6	1" 25.4		1.5625" 39.688		4.2813" 108.744		3.5094" 89.139		1.4687" 37.306	0.0679" 1.727	0.020	160	320	418
SW20L	6	1-1/4" 31.75		2" 50.8	0-7 -0.022	5" 127	0 -0.40	4.0094" 101.839	0 -0.40	1.8859" 47.904	0.0679" 1.727	0.025	255	360	746
SW24L	6	1-1/2" 38.1	0-7 -0.015	2.375" 60.325		5.6875" 144.463		4.8236" 122.519		2.2389" 56.87	0.859" 2.184	0.025	350	820	
SW32L	6	2" 50.8		3" 76.2	0-7 -0.025	7.75" 196.85		6.3834" 162.138		2.8379" 72.085	0.1029" 2.616	0.030	620	1622	1206

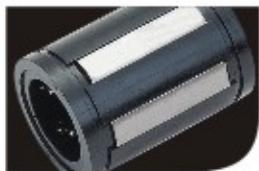
注：SW16L钢保持器球列数5列，工程塑料保持器球列数6列。

Annotate: SW16L steel retainer the number of ball rows is 5, POM retainer the number of ball rows is 6.

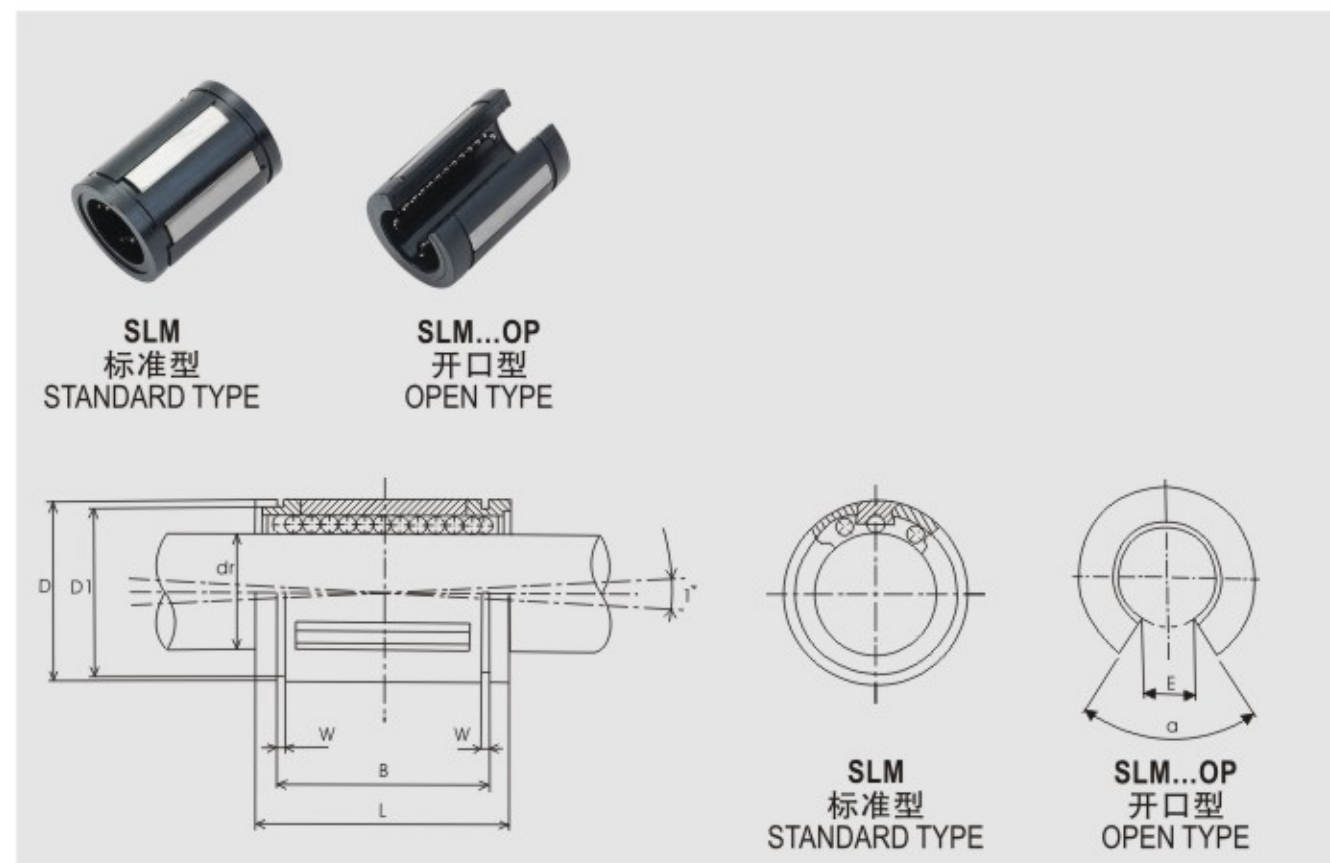
KH迷你型(冲压套圈)直线轴承
 KH Mini (pressing bush) linear bearing



型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS			基本额定载荷 BASIC LOAD RATING		重量 WEIGHT(g)
		d	D	B	动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	
KH0824	4	8	15	24	44	29	11.3
KH1026	4	10	17	26	51	38	14.4
KH1228	5	12	19	28	63	52	18.1
KH1428	5	14	21	28	63	52	20.6
KH1630	5	16	24	30	82	63	27.2
KH2030	6	20	28	30	97	81	32.7
KH2540	6	25	35	40	203	170	66
KH3050	7	30	40	50	286	276	95
KH4060	8	40	52	60	449	454	180
KH5070	9	50	62	70	561	643	250



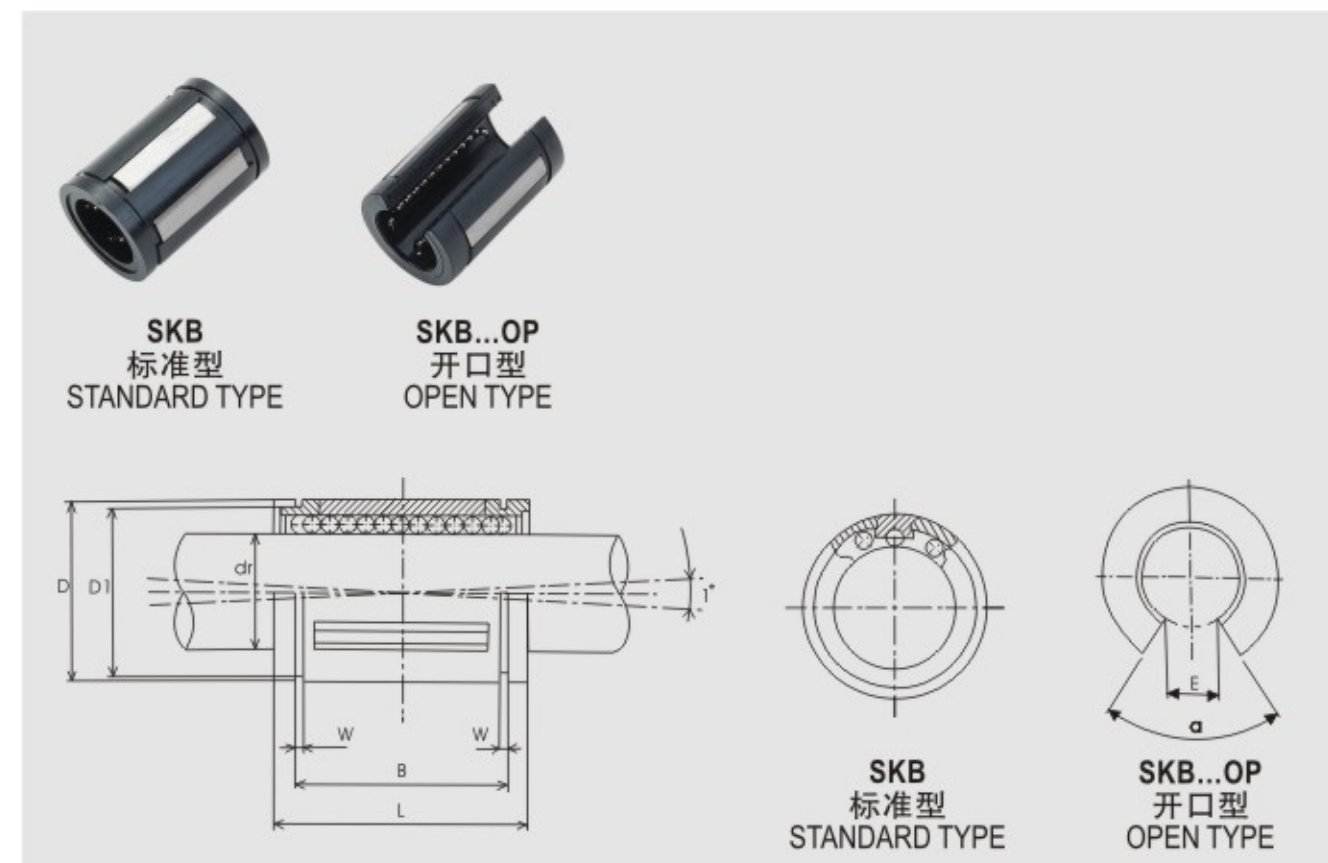
SLM超级型直线轴承
 SLM Super type linear bearing
 亚洲系列
 Asia series



型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS								基本额定载荷 BASIC LOAD RATING				重量 WEIGHT (Kg)	
				dr	D	L	D1	B	W	E	α	动 DYNAMIC C(kgf)	静 STATIC Co(kgf)				
SLM16	5	SLM16OP	4	16	28	37	27	26.5	1.6	11	80°	153	128	0.0415	0.0345		
SLM20	6	SLM20OP	5	20	32	42	30.5	30.5	1.6	11	60°	263	170	0.0655	0.055		
SLM25	6	SLM25OP	5	25	40	59	38	41	1.85	12	50°	388	281	0.134	0.114		
SLM30	6	SLM30OP	5	30	45	64	43	44.5	1.85	15	50°	481	286	0.152	0.130		
SLM40	6	SLM40OP	5	40	60	80	57	60.5	2.1	20	50°	663	584				
SLM50	6	SLM50OP	5	50	80	100	76.5	74	2.6	25	50°	1169	810				

注: SLM轴承可以和LM轴承互换。
 SLM...OP轴承可以和LM...OP轴承互换。
 Annotate: SLM type can crossing-over with LM.
 SLM...OP type can crossing-over with LM...OP.

SKB超级型直线轴承
 SKB Super type linear bearing
 欧洲系列
 Europe series

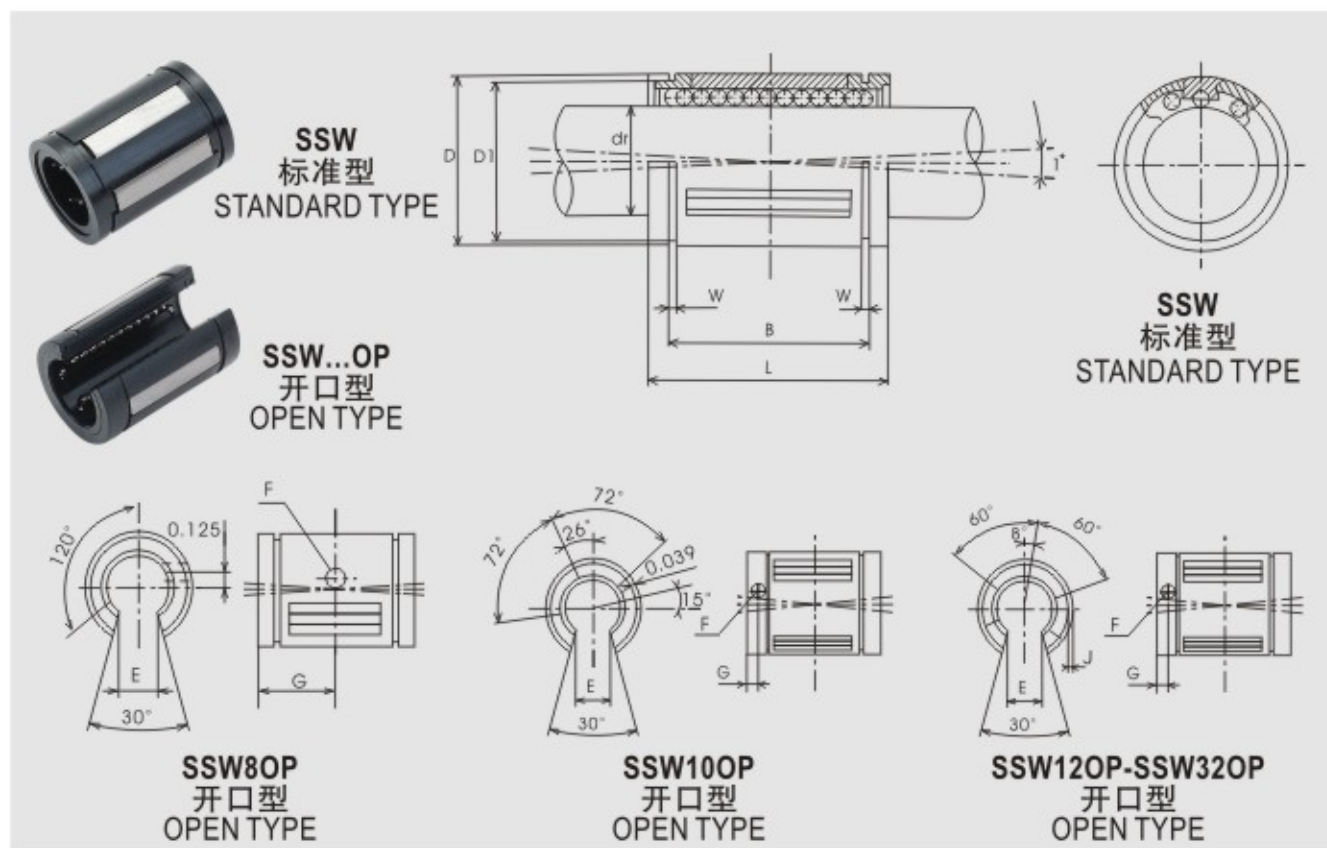


型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS								基本额定载荷 BASIC LOAD RATING				重量 WEIGHT (Kg)	
				dr	D	L	D1	B	W	E	α	动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	动 DYNAMIC C(kgf)	静 STATIC Co(kgf)		
SKB12	5			12	22	32	21	22.7	1.35			126	112			0.021	
SKB16	5	SKB16OP	4	16	26	36	24.9	24.7	1.35	9	68°	153	128	167	135	0.043	0.035
SKB20	6	SKB20OP	5	20	32	45	30.3	31.3	1.65	9	55°	263	170	268	176	0.058	0.048
SKB25	6	SKB25OP	5	25	40	58	37.5	43.8	1.90	11.5	57°	388	281	399	291	0.123	0.103
SKB30	6	SKB30OP	5	30	47	68	44.5	51.8	1.90	14	57°	481	286	495	296	0.216	0.177
SKB40	6	SKB40OP	5	40	62	80	59	60.4	2.20	19.5	56°	663	584	684	602	0.333	0.275
SKB50	6	SKB50OP	5	50	75	100	72	77.4	2.70	22.5	54°	1169	810	1194	827	0.618	0.520

注: SKB轴承可以和KB轴承互换。
 SKB...OP轴承可以和KB...OP轴承互换。
 Annotate: SKB type can crossing-over with LM.
 SKB...OP type can crossing-over with KB...OP.



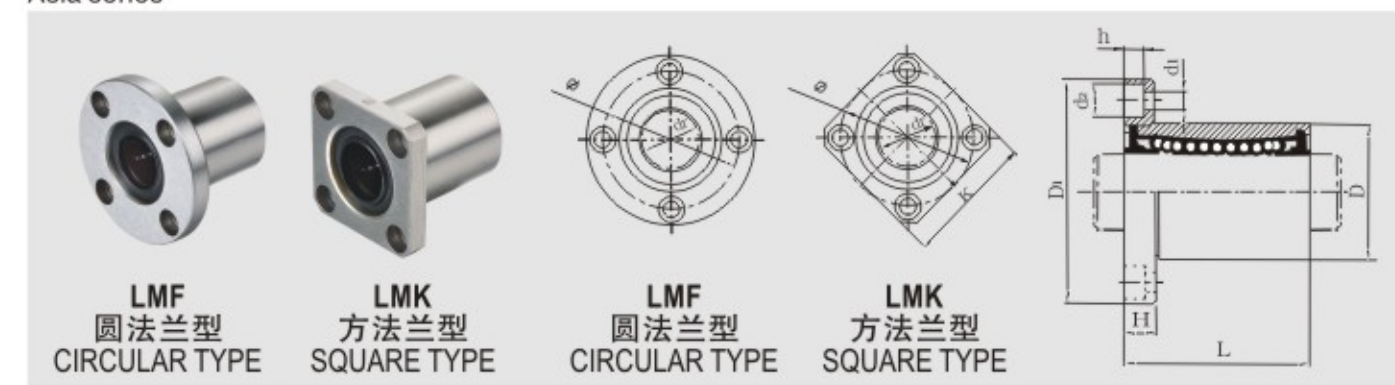
SSW超级型直线轴承
 SSW Super type linear bearing
 英制系列
 Inch system series



型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS										基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)
				dr	D	L	D1	B	W	E	F	G	J	动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	
SSW8	4	SSW8OP	4	1/2" 12.7	0.875" 22.225	1.25" 31.75	0.8209" 20.85	1.032" 26.213	0.0459" 1.166	0.313" 7.95	0.136" 3.45	0.625" 15.875	Thru	104	132	0.023
SSW10	5	SSW10OP	4	5/8" 15.875	1.125" 28.575	1.5" 38.1	1.059" 26.899	1.112" 28.245	0.0559" 1.42	0.375" 9.525	0.105" 2.667	0.125" 3.175	0.039" 0.991	182	228	0.035
SSW12	5	SSW12OP	5	3/4" 19.05	1.25" 31.75	1.625" 41.275	1.176" 29.87	1.272" 32.309	0.0559" 1.42	0.438" 11.125	0.136" 3.454	0.125" 3.175	0.059" 1.499	213	268	0.07
SSW16	6	SSW16OP	5	1" 25.4	1.5625" 39.688	2.25" 57.15	1.4687" 37.305	1.886" 47.904	0.0679" 1.725	0.563" 14.3	0.136" 3.454	0.125" 3.175	0.047" 1.194	386	481	0.142
SSW20	6	SSW20OP	5	1-1/4" 31.75	2" 50.8	2.625" 66.675	1.8859" 47.9	2.011" 51.079	0.0679" 1.725	0.625" 15.875	0.201" 5.105	0.1875" 4.763	0.09" 2.286	558	695	0.27
SSW24	6	SSW24OP	5	1-1/2" 38.1	2.375" 60.325	3" 76.2	2.2389" 56.868	2.422" 61.519	0.0859" 2.185	0.75" 19.05	0.201" 5.105	0.1875" 4.763	0.09" 2.286	672	840	0.371
SSW32	6	SSW32OP	5	2" 50.8	3" 76.2	4" 101.6	2.8379" 72.083	3.206" 81.432	0.1029" 2.614	1" 25.4	0.265" 6.731	0.3125" 7.938	Thru	1102	1377	0.64

注: SSW轴承可以和SW轴承互换
 SSW...OP轴承可以和SW...OP轴承互换
 Annotate: SSW type can crossing-over with SW.
 SSW...OP type can crossing-over with SW...OP.

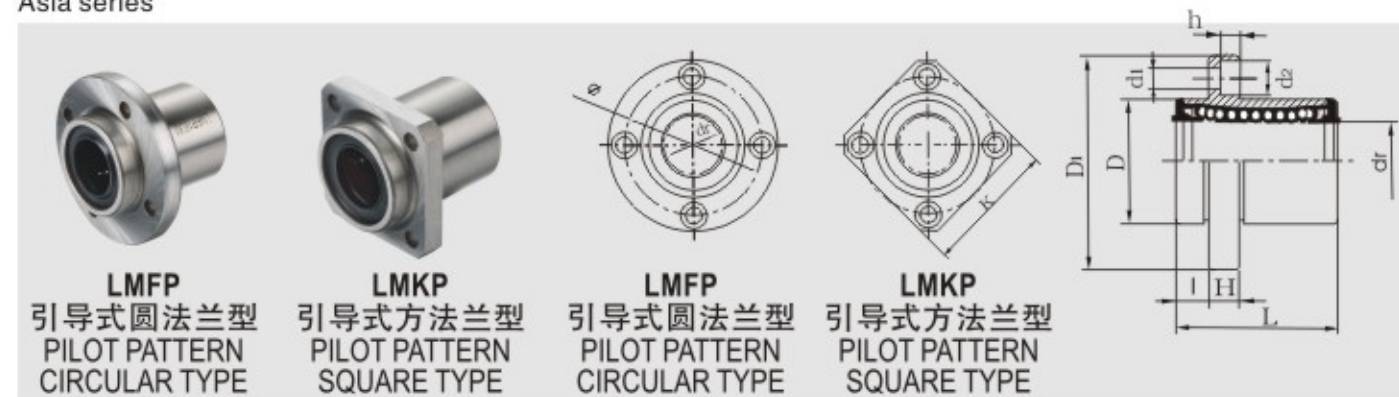
LMF圆法兰型直线轴承
 LMF Circular flange type linear bearing
 LMK方法兰型直线轴承
 LMK Square flange type linear bearing
 亚洲系列
 Asia series



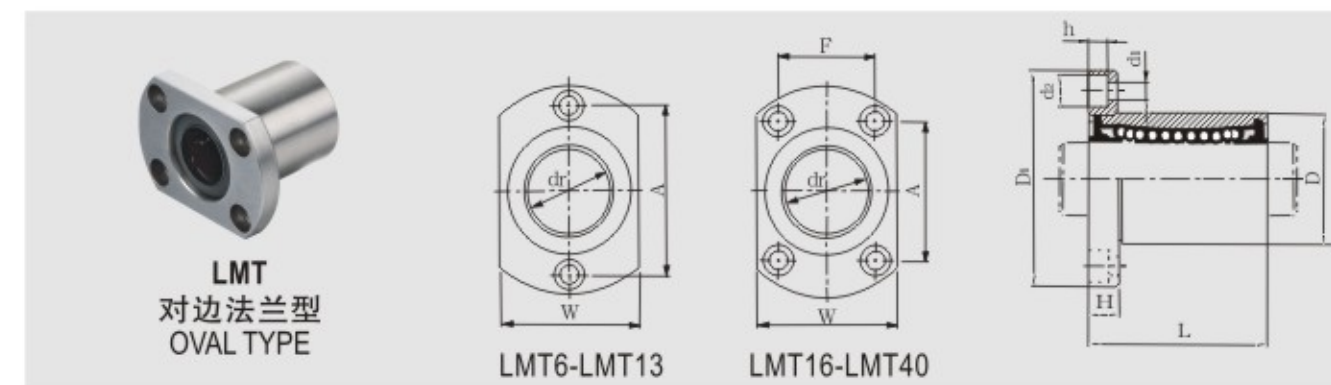
型号 MODEL NO.	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS										法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本 额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)				
			内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE			连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)					
			dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	Φ			d1	d2	h				
LMF6	LMK6	4	6		12	0	19		28	22	5	20	3.5	6	3.1	0.012	0.012	21	27	0.022	0.017
LMF8S	LMK8S	4	8		15	-0.011	17		32	25	5	24	3.5	6	3.1			18	22		
LMF8	LMK8	4	8	0	15		24		32	25	5	24	3.5	6	3.1			28	40	0.035	0.027
LMF10	LMK10	4	10	-0.009	19	0	29	0	40	30	6	29	4.5	7.5	4.1			38	56	0.066	0.047
LMF12	LMK12	4	12		21	-0.013	30		42	32	6	32	4.5	7.5	4.1			52	80	0.070	0.053
LMF13	LMK13	4	13		23		32		43	34	6	33	4.5	7.5	4.1			52	80	0.079	0.064
LMF16	LMK16	5	16		28		37		48	37	6	38	4.5	7.5	4.1			79	120	0.122	0.102
LMF20	LMK20	5	20	0	32	0	42		54	42	8	43	5.5	9	5.1	0.015	0.015	90	140	0.163	0.12
LMF25	LMK25	6	25	-0.010	40	-0.016	59		62	50	8	51	5.5	9	5.1			100	160	0.311	0.272
LMF30	LMK30	6	30		45		64		74	58	10	60	6.6	11	6.1			160	280	0.42	0.34
LMF35	LMK35	6	35	0	52	0	70		82	64	10	67	6.6	11	6.1	0.020	0.020	170	320	0.60	0.496
LMF40	LMK40	6	40	-0.012	60	-0.019	80		96	75	13	78	9	14	8.1			220	410	0.749	0.773
LMF50	LMK50	6	50		80		100		116	92	13	98	9	14	8.1			390	810	1.96	1.72
LMF60	LMK60	6	60	0	90	-0.022	110		134	106	18	112	11	17.5	10.8	0.025	0.025	480	1020	2.70	2.25



LMFP引导式圆法兰型直线轴承
 LMFP Pilot pattern circular flange type linear bearing
 LMKP引导式方法兰型直线轴承
 LMKP Pilot pattern square flange type linear bearing
 亚洲系列
 Asia series



LMT对边法兰型直线轴承
 LMT Oval flange type linear bearing
 亚洲系列
 Asia series



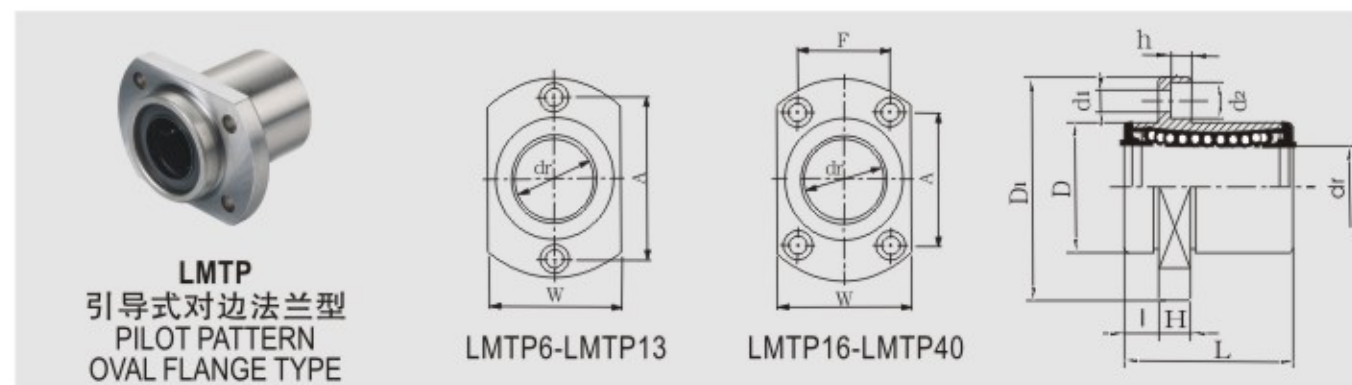
型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本 额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)				
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)					
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	Φ	d1							d2	h	
LMFP6	LMKP6	4	6	12	0	19	0	5	28	22	5	20	3.5	6	3.1	0.012	0.012	21	27	0.022	0.017
LMFP8	LMKP8	4	8	15	-0.013	24	0	5	32	25	5	24	3.5	6	3.1	0.012	0.012	28	40	0.035	0.027
LMFP10	LMKP10	4	10	19	0	29	-0.009	6	40	30	6	29	4.5	7.5	4.1	0.012	0.012	38	56	0.065	0.047
LMFP12	LMKP12	4	12	21	0	30	-0.016	6	42	32	6	32	4.5	7.5	4.1	0.012	0.012	52	80	0.072	0.053
LMFP13	LMKP13	4	13	23	0	32	-0.016	6	43	34	6	33	4.5	7.5	4.1	0.012	0.012	52	80	0.079	0.064
LMFP16	LMKP16	5	16	28	0	37	-0.016	6	48	37	6	38	4.5	7.5	4.1	0.012	0.012	79	120	0.123	0.102
LMFP20	LMKP20	5	20	32	0	42	-0.010	8	54	42	8	43	5.5	9	5.1	0.015	0.015	90	140	0.161	0.129
LMFP25	LMKP25	6	25	40	0	59	-0.019	8	62	50	8	51	5.5	9	5.1	0.015	0.015	100	160	0.309	0.272
LMFP30	LMKP30	6	30	45	0	64	-0.019	10	74	58	10	60	6.6	11	6.1	0.015	0.015	160	280	0.42	0.34
LMFP35	LMKP35	6	35	52	0	70	-0.012	10	82	64	10	67	6.6	11	6.1	0.020	0.020	170	320	0.60	0.496
LMFP40	LMKP40	6	40	60	0	80	-0.022	13	96	75	13	78	9	14	8.1	0.020	0.020	220	410	0.749	0.773
LMFP50	LMKP50	6	50	80	0	100	-0.015	13	116	92	13	98	9	14	8.1	0.025	0.025	390	810	1.96	1.72
LMFP60	LMKP60	6	60	90	0	110	-0.025	18	134	106	18	112	11	17.5	10.8	0.025	0.025	480	1020	2.80	2.70

型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本 额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)				
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	W	H	A	F							d1	d2
LMT6	4	6	12	0	19	0	5	28	22	5	20	3.5	6	3.1	0.012	0.012	21	27	0.022	0.017
LMT8	4	8	15	-0.011	24	0	5	32	25	5	24	3.5	6	3.1	0.012	0.012	27	41	0.029	0.029
LMT10	4	10	19	0	29	-0.009	6	40	30	6	29	4.5	7.5	4.1	0.012	0.012	38	56	0.054	0.054
LMT12	4	12	21	0	30	-0.013	6	42	32	6	32	4.5	7.5	4.1	0.012	0.012	42	61	0.058	0.058
LMT13	4	13	23	0	32	-0.013	6	43	34	6	33	4.5	7.5	4.1	0.012	0.012	52	79	0.072	0.072
LMT16	5	16	28	0	37	-0.013	6	48	37	6	38	4.5	7.5	4.1	0.012	0.012	79	120	0.109	0.109
LMT20	5	20	32	0	42	-0.010	8	54	42	8	43	5.5	9	5.1	0.015	0.015	90	140	0.161	0.129
LMT25	6	25	40	0	59	-0.016	8	62	50	8	51	5.5	9	5.1	0.015	0.015	100	160	0.309	0.272
LMT30	6	30	45	0	64	-0.016	10	74	58	10	60	6.6	11	6.1	0.015	0.015	160	280	0.42	0.34
LMT35	6	35	52	0	70	-0.012	10	82	64	10	67	6.6	11	6.1	0.020	0.020	170	320	0.60	0.496
LMT40	6	40	60	0	80	-0.019	13	96	75	13	78	9	14	8.1	0.020	0.020	220	410	0.749	0.773



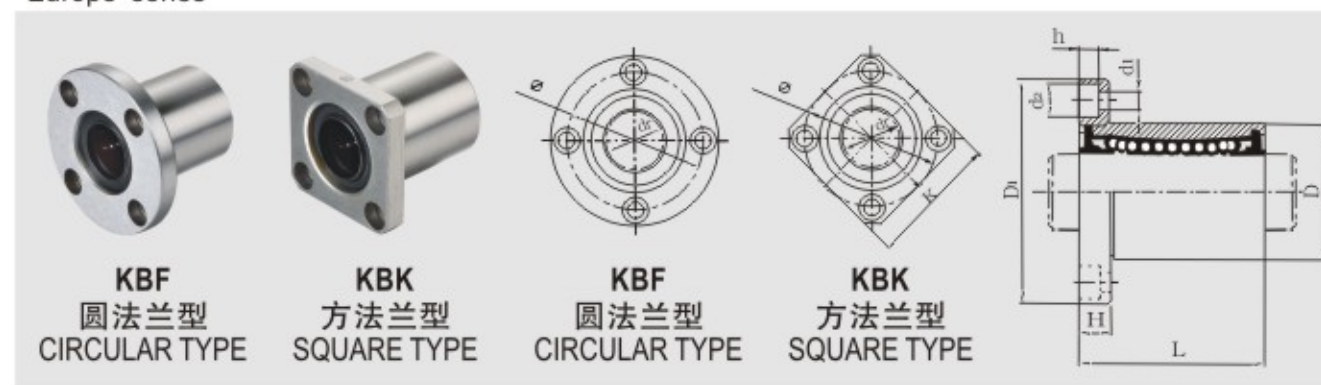
LMT Pilot pattern oval flange type
 LMT Pilot pattern oval flange type

亚洲系列
 Asia series



KBF Circular flange type
 KBF Circular flange type

KBK Square flange type
 KBK Square flange type
 欧洲系列
 Europe series

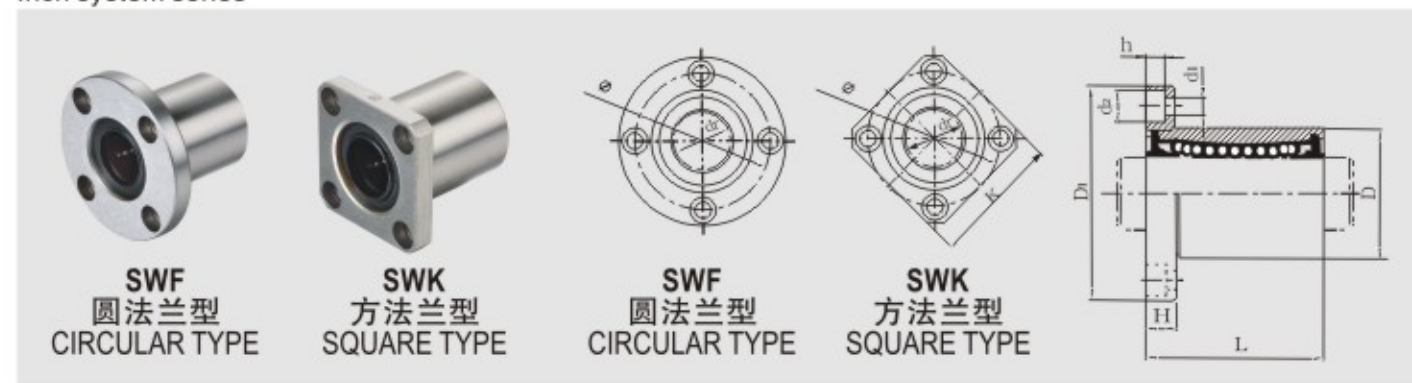


型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本 额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE							连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	W	H	A	F			d1	d2				h
LMT P6	4	6	12	0	19	5	28	18	5	20	3.5	6	3.1	0.012	0.012	21	27	0.019		
LMT P8	4	8	15	-0.013	24	5	32	21	5	24	3.5	6	3.1	0.012	0.012	27	41	0.028		
LMT P10	4	10	19	0	29	6	40	25	6	29	4.5	7.5	4.1	0.012	0.012	38	56	0.057		
LMT P12	4	12	21	-0.009	30	6	42	27	6	32	4.5	7.5	4.1	0.012	0.012	42	61	0.062		
LMT P13	4	13	23	0	32	6	43	29	6	33	4.5	7.5	4.1	0.012	0.012	52	79	0.072		
LMT P16	5	16	28	-0.016	37	6	48	34	6	31	22	4.5	7.5	4.1	0.012	0.012	79	120	0.105	
LMT P20	5	20	32	0	42	8	54	38	8	36	24	5.5	9	5.1	0.015	0.015	88	140	0.146	
LMT P25	6	25	40	0	59	8	62	46	8	40	32	5.5	9	5.1	0.015	0.015	100	160	0.22	
LMT P30	6	30	45	-0.010	64	10	74	51	10	49	35	6.6	11	6.1	0.015	0.015	160	280	0.37	
LMT P35	6	35	52	0	70	10	82	60	10	55	38	6.6	11	6.1	0.020	0.020	170	320	0.52	
LMT P40	6	40	60	-0.012	80	13	96	70	13	64	45	9	14	8.1	0.020	0.020	220	410	0.828	

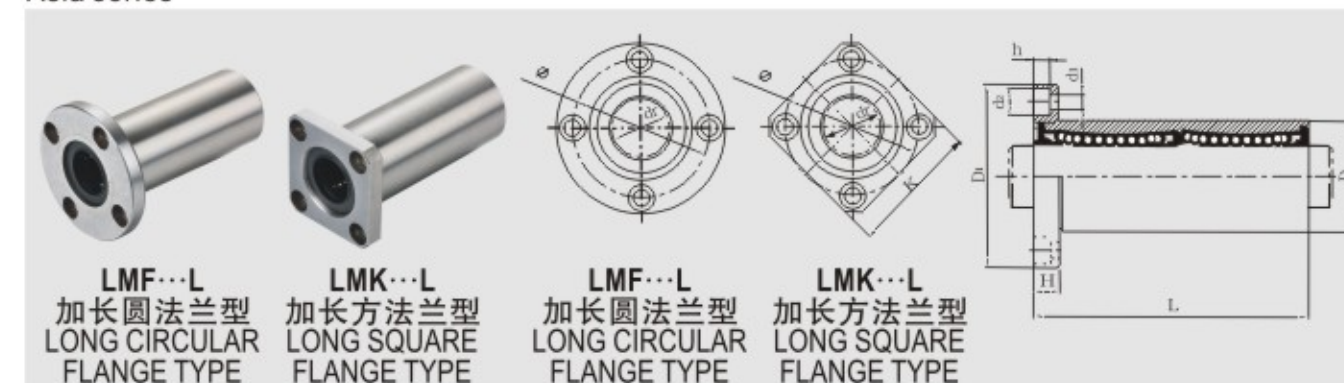
型号 MODEL NO.	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本 额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
			内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE							连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	
			dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	phi	d1			d2	h				
KBF5	KBK5	4	5	12	0	22	5	28	22	5	20	3.5	6	3.1	0.012	0.012	21	27			
KBF8	KBK8	4	8	16	-0.008	25	5	32	25	5	24	3.5	6	3.1	0.012	0.012	27	41	0.039 0.032		
KBF10	KBK10	4	10	19	+0.008	29	6	40	30	6	29	4.5	7.5	4.1	0.012	0.012	38	56	0.055 0.048		
KBF12	KBK12	4	12	22	0	32	6	42	32	6	32	4.5	7.5	4.1	0.012	0.012	52	80	0.079 0.062		
KBF16	KBK16	5	16	26	+0.009	36	6	46	35	6	36	4.5	7.5	4.1	0.012	0.012	59	91	0.106 0.074		
KBF20	KBK20	5	20	32	-0.001	45	8	54	42	8	43	5.5	9	5.1	0.015	0.015	88	140	0.171 0.137		
KBF25	KBK25	6	25	40	0	58	8	62	50	8	51	5.5	9	5.1	0.015	0.015	100	160	0.308 0.265		
KBF30	KBK30	6	30	47	+0.011	68	10	76	60	10	62	6.6	11	6.1	0.015	0.015	160	280	0.594 0.43		
KBF40	KBK40	6	40	62	-0.001	80	10	98	75	13	80	9	14	8.1	0.017	0.017	220	410	1.098 0.88		
KBF50	KBK50	6	50	75	0	100	13	112	88	13	94	9	14	8.1	0.017	0.017	390	810	1.67 1.46		
KBF60	KBK60	6	60	90	+0.013	125	18	134	106	18	112	11	17.5	10.8	0.020	0.020	480	1000	3.00 2.60		



SWF圆法兰型直线轴承
 SWF Circular flange type linear bearing
 SWK方法兰型直线轴承
 SWK Square flange type linear bearing
 英制系列
 Inch system series



LMF加长圆法兰型直线轴承
 LMF Long circular flange type linear bearing
 LMK加长方法兰型直线轴承
 LMK Long square flange type linear bearing
 亚洲系列
 Asia series



型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本 额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	F	K		
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	Φ	d1							d2	h
SWF4 SWK4	4	1/4" 6.35	0	0.5" 12.7	0 -0.011	0.75" 19.05	0	1.25" 31.75	1" 25.4	0.219" 5.566	0.875" 22.225	0.156" 3.969	0.25" 6.35	0.141" 3.572	21	27	0.0245	0.03		
SWF6 SWK6	4	3/8" 9.525	0	0.625" 15.875	0	0.875" 22.225	0	1.5" 38.1	1.25" 31.75	0.25" 6.35	1.062" 26.988	0.1875" 4.763	0.297" 7.541	0.172" 4.366	23	32	0.0293	0.037		
SWF8 SWK8	4	1/2" 12.7	-0.009	0.875" 22.225	0 -0.013	1.25" 31.75	0 -0.20	1.75" 44.45	1.375" 34.925	0.25" 6.35	1.312" 33.338	0.1875" 4.763	0.297" 7.541	0.172" 4.366	52	80	0.0637	0.80		
SWF10 SWK10	4	5/8" 15.875	0	1.125" 28.575	0	1.5" 38.1	0	2" 50.8	1.5" 38.1	0.25" 6.35	1.562" 39.688	0.1875" 4.763	0.297" 7.541	0.172" 4.366	79	120	0.1055	0.127		
SWF12 SWK12	4	3/4" 19.05	0	1.25" 31.75	0 -0.016	1.625" 41.275	0	2.1875" 55.563	1.6875" 42.863	0.3125" 7.938	1.718" 43.66	0.2187" 5.556	0.344" 8.731	0.203" 5.159	88	140	0.136	0.173		
SWF16 SWK16	6	1" 25.4	-0.010	1.5625" 39.688	0	2.25" 57.15	0	2.5" 63.5	2" 50.8	0.3125" 7.938	2.031" 51.594	0.2187" 5.556	0.344" 8.731	0.203" 5.159	100	160	0.263	0.303		
SWF20 SWK20	6	1-1/4" 31.75	0	2" 50.8	0	2.625" 66.675	0	3.125" 79.375	2.5" 63.5	0.375" 9.525	2.5625" 65.088	0.2812" 7.144	0.406" 10.319	0.2656" 6.747	160	280	0.493	0.585		
SWF24 SWK24	6	1-1/2" 38.1	-0.012	2.375" 60.325	0 -0.019	3" 76.2	0 -0.30	3.75" 95.25	3" 76.2	0.5" 12.7	3.0625" 77.788	0.344" 8.731	0.5" 12.7	0.328" 8.334	222	410	0.808	0.992		
SWF32 SWK32	6	2" 50.8	0	3" 76.2	0 -0.022	4" 101.6	0	4.375" 111.125	3.5" 88.9	0.5" 12.7	3.6875" 93.662	0.344" 8.731	0.5" 12.7	0.328" 8.334	390	810	1.505	1.705		

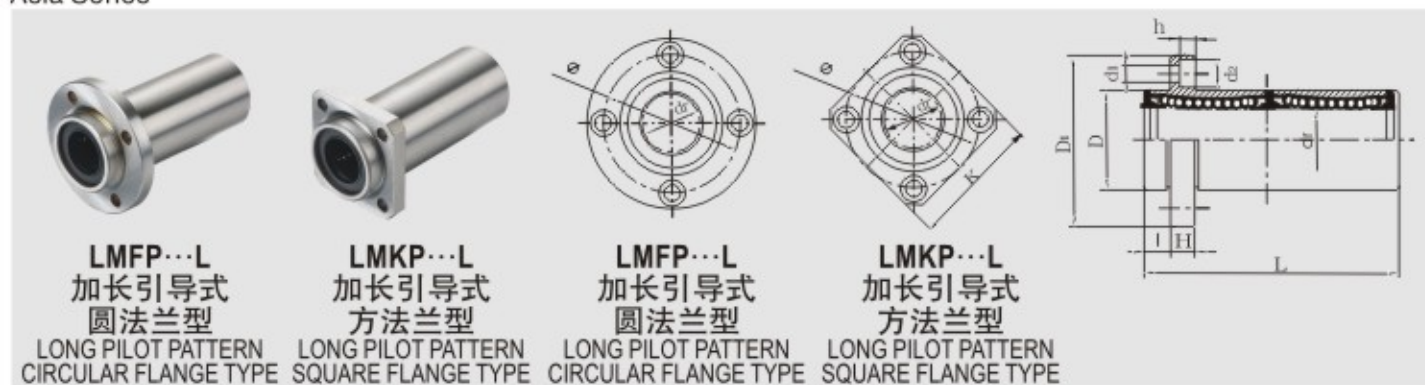
注：SWF16钢保持器球列数5列，工程塑料保持器球列数6列。
 Annotate: SWF16L steel retainer the number of ball rows is 5, POM retainer the number of ball rows is 6.

型号 MODEL NO.	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本 额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
			内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	F	K		
			dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	Φ	d1							d2	h
LMF6L	LMK6L	4	6	12	0	35	0	28	22	5	20	3.5	6	3.1	0.015	0.015	33	54	0.031	0.023	
LMF8L	LMK8L	4	8	15	-0.013	45	0	32	25	5	24	3.5	6	3.1	0.015	0.015	44	80	0.048	0.043	
LMF10L	LMK10L	4	10	19	0	55	0	40	30	6	29	4.5	7.5	4.1	0.015	0.015	60	112	0.089	0.074	
LMF12L	LMK12L	4	12	21	0	57	0	42	32	6	32	4.5	7.5	4.1	0.015	0.015	83	160	0.095	0.08	
LMF13L	LMK13L	4	13	23	-0.016	61	0	43	34	6	33	4.5	7.5	4.1	0.015	0.015	83	160	0.12	0.11	
LMF16L	LMK16L	5	16	28	0	70	0	48	37	6	38	4.5	7.5	4.1	0.015	0.015	126	240	0.19	0.157	
LMF20L	LMK20L	5	20	32	0	80	0	54	42	8	43	5.5	9	5.1	0.020	0.020	143	280	0.25	0.213	
LMF25L	LMK25L	6	25	40	-0.012	112	0	62	50	8	51	5.5	9	5.1	0.020	0.020	159	320	0.507	0.473	
LMF30L	LMK30L	6	30	45	0	123	0	74	58	10	60	6.6	11	6.1	0.025	0.025	254	560	0.643	0.57	
LMF35L	LMK35L	6	35	52	0	135	0	82	64	10	67	6.6	11	6.1	0.025	0.025	270	640	0.95	0.91	
LMF40L	LMK40L	6	40	60	0	151 154	0	96	75	13	78	9	14	8.1	0.025	0.025	350	820	1.48	1.31	
LMF50L	LMK50L	6	50	80	0	192	0	116	92	13	98	9	14	8.1	0.025	0.025	620	1622	3.79	3.10	
LMF60L	LMK60L	6	60	90	-0.020	209	0	134	106	18	112	11	17.5	10.8	0.025	0.025	770	2040	4.40	3.5	



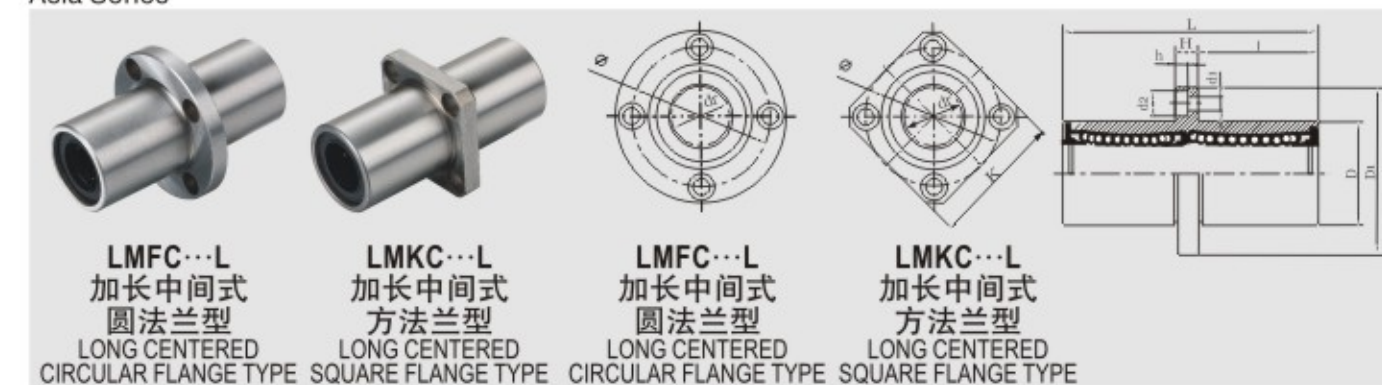
LMFP...L 加长引导式圆法兰型直线轴承
 LMFP...L Long pilot pattern circular flange type
 LMKP...L 加长引导式方法兰型直线轴承
 LMKP...L Long pilot pattern square flange type

亚洲系列
 Asia Series



LMFC...L 加长中间式圆法兰型直线轴承
 LMFC...L Long centered circular flange type
 LMKC...L 加长中间式方法兰型直线轴承
 LMKC...L Long centered square flange type

亚洲系列
 Asia Series



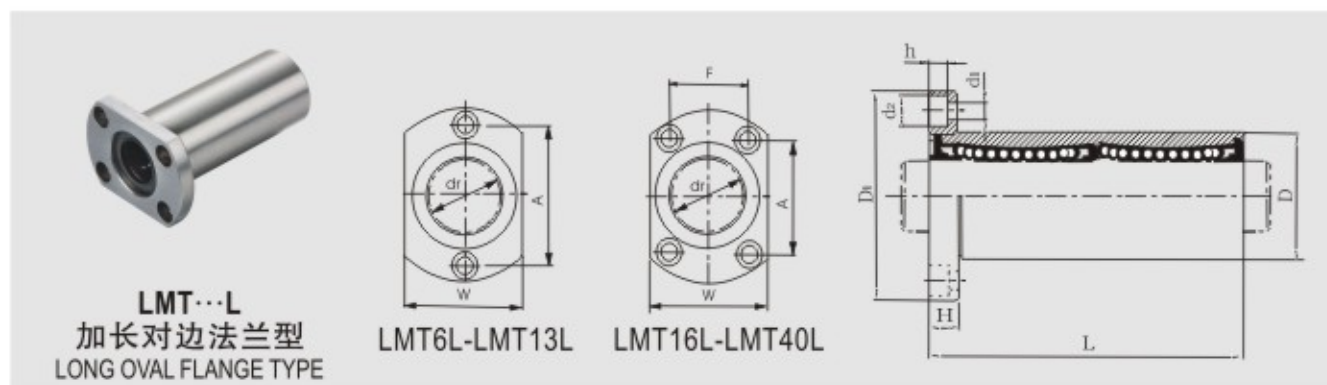
型号 MODEL NO.	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰垂直度 SQUAR-ENESS	径向跳动 ECCEN-TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)					
			内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	F	K				
			dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	Φ	d1							d2	h		
LMFP6L	LMKP6L	4	6	0 -0.01	12	0	35	0 -0.30	5	28	22	5	20	3.5	6	3.1	0.015	0.015	33	54	0.028	0.024	
LMFP8L	LMKP8L	4	8		15	-0.013	45		5	32	25	5	24	3.5	6	3.1			44	80	0.045	0.042	
LMFP10L	LMKP10L	4	10		19	0 -0.016	55		6	40	30	6	29	4.5	7.5	4.1			60	112	0.080	0.074	
LMFP12L	LMKP12L	4	12		21		0		57	6	42	32	6	32	4.5	7.5			4.1	83	160	0.094	0.081
LMFP13L	LMKP13L	4	13		23		-0.016		61	6	43	34	6	33	4.5	7.5			4.1	83	160	0.119	0.104
LMFP16L	LMKP16L	5	16		28	0	70		6	48	37	6	38	4.5	7.5	4.1			126	240	0.184	0.174	
LMFP20L	LMKP20L	5	20	0 -0.012	32	0	80	0 -0.40	8	54	42	8	43	5.5	9	5.1	0.020	0.020	143	280	0.246	0.206	
LMFP25L	LMKP25L	6	25		40	-0.019	112		8	62	50	8	51	5.5	9	5.1			159	320	0.500	0.463	
LMFP30L	LMKP30L	6	30		45	0 -0.022	123		10	74	58	10	60	6.6	11	6.1			254	560	0.600	0.550	
LMFP35L	LMKP35L	6	35	52	0		135	10	82	64	10	67	6.6	11	6.1	270	640	0.975	0.871				
LMFP40L	LMKP40L	6	40	60	-0.022		151 (154)	13	96	75	13	78	9	14	8.1	350	820	1.500	0.360				
LMFP50L	LMKP50L	6	50	80	0		192	13	116	92	13	98	9	14	8.1	620	1622	3.440	3.200				
LMFP60L	LMKP60L	6	60	90	-0.025	209	18	134	106	18	112	11	17.5	10.8	770	2040	4.380	3.990					

型号 MODEL NO.	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰垂直度 SQUAR-ENESS	径向跳动 ECCEN-TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)					
			内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	F	K				
			dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	Φ	d1							d2	h		
LMFC6L	LMKC6L	4	6	0 -0.01	12	0	35	0 -0.30	5	28	22	5	20	3.5	6	3.1	0.015	0.015	33	54	0.028	0.024	
LMFC8L	LMKC8L	4	8		15	-0.013	45		5	32	25	5	24	3.5	6	3.1			44	80	0.053	0.039	
LMFC10L	LMKC10L	4	10		19	0 -0.016	55		6	40	30	6	29	4.5	7.5	4.1			60	112	0.086	0.073	
LMFC12L	LMKC12L	4	12		21		0		57	6	42	32	6	32	4.5	7.5			4.1	83	160	0.095	0.080
LMFC13L	LMKC13L	4	13		23		-0.016		61	6	43	34	6	33	4.5	7.5			4.1	83	160	0.119	0.104
LMFC16L	LMKC16L	5	16		28	0	70		6	48	37	6	38	4.5	7.5	4.1			126	240	0.170	0.168	
LMFC20L	LMKC20L	5	20	0 -0.012	32	0	80	0 -0.40	8	54	42	8	43	5.5	9	5.1	0.020	0.020	143	280	0.244	0.205	
LMFC25L	LMKC25L	6	25		40	-0.019	112		8	62	50	8	51	5.5	9	5.1			159	320	0.506	0.470	
LMFC30L	LMKC30L	6	30		45	0 -0.022	123		10	74	58	10	60	6.6	11	6.1			254	560	0.670	0.560	
LMFC35L	LMKC35L	6	35	52	0		135	10	82	64	10	67	6.6	11	6.1	270	640	0.933	0.800				
LMFC40L	LMKC40L	6	40	60	-0.022		151 (154)	13	96	75	13	78	9	14	8.1	350	820	1.495	1.360				
LMFC50L	LMKC50L	6	50	80	0		192	13	116	92	13	98	9	14	8.1	620	1622	3.440	3.200				
LMFC60L	LMKC60L	6	60	90	-0.025	209	18	134	106	18	112	11	17.5	11.1	770	2040	4.380	3.900					



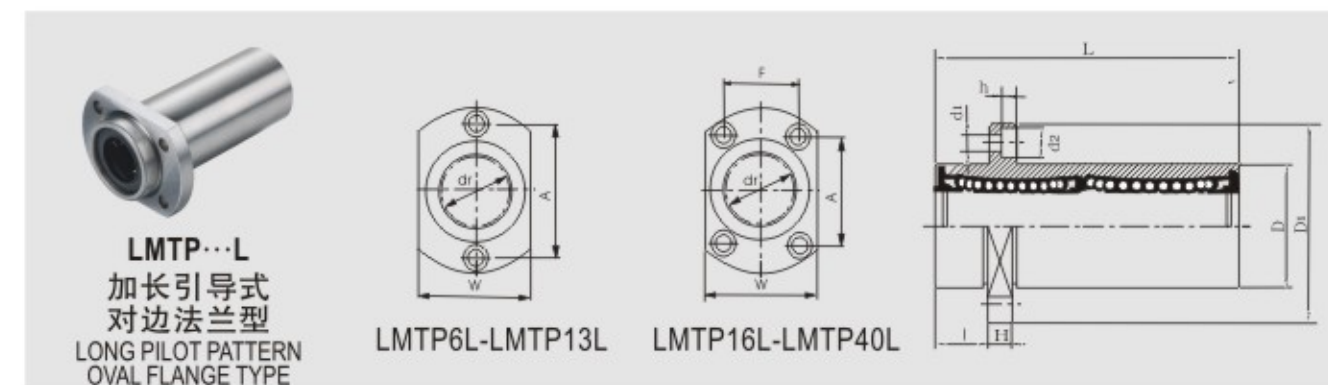
LMT...L加长对边法兰型直线轴承
 LMT...L Long oval flange type

亚洲系列
 Asia Series



LMT...L加长引导式对边法兰型直线轴承
 LMT...L Long pilot pattern oval flange type

亚洲系列
 Asia Series



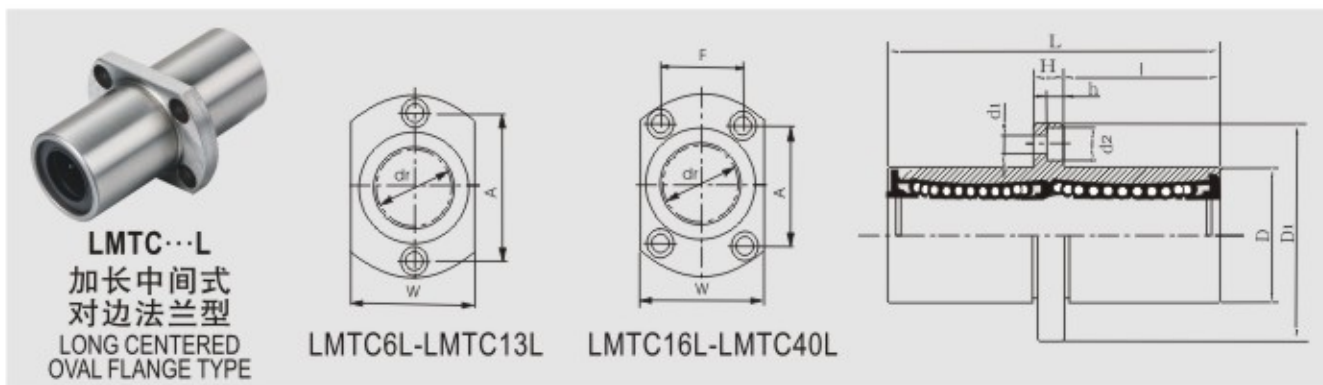
型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本 额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE							连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	W	H	A	F			d1	d2				h
LMT6L	4	6		12	0	35		28	18	5	20		3.5	6	3.1	0.015	0.015	33	54	0.025
LMT8L	4	8		15	-0.013	45		32	21	5	24		3.5	6	3.1	0.015	0.015	44	80	0.041
LMT10L	4	10	0	19		55		40	25	6	29		4.5	7.5	4.1	0.015	0.015	67	112	0.080
LMT12L	4	12	-0.010	21	0	57	-0.30	42	27	6	32		4.5	7.5	4.1	0.015	0.015	83	160	0.087
LMT13L	4	13		23	-0.016	61		43	29	6	33		4.5	7.5	4.1	0.015	0.015	83	160	0.107
LMT16L	5	16		28		70		48	34	6	31	22	4.5	7.5	4.1	0.015	0.015	125	240	0.171
LMT20L	5	20		32		80		54	38	8	36	24	5.5	9	5.1	0.020	0.020	143	280	0.214
LMT25L	6	25	0	40	-0.019	112		62	46	8	40	32	5.5	9	5.1	0.020	0.020	159	320	0.476
LMT30L	6	30		45		123	0	74	51	10	49	35	6.6	11	6.1	0.025	0.025	254	560	0.570
LMT35L	6	35	0	52	0	135	-0.40	82	60	10	55	38	6.6	11	6.1	0.025	0.025	270	640	0.874
LMT40L	6	40	-0.015	60	-0.022	151 (154)		96	70	13	64	45	9	14	8.1	0.025	0.025	350	820	1.820

型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE							连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kgf)	静 STATIC Co(kgf)	
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	W	H	A	F			d1	d2				h
LMT6L	4	6		12	0	35		28	18	5	20		3.5	6	3.1	0.015	0.015	33	54	0.024
LMT8L	4	8		15	-0.013	45		32	21	5	24		3.5	6	3.1	0.015	0.015	44	80	0.041
LMT10L	4	10	0	19		55		40	25	6	29		4.5	7.5	4.1	0.015	0.015	60	112	0.077
LMT12L	4	12	-0.010	21	0	57	-0.30	42	27	6	32		4.5	7.5	4.1	0.015	0.015	67	122	0.084
LMT13L	4	13		23	-0.016	61		43	29	6	33		4.5	7.5	4.1	0.015	0.015	83	160	0.144
LMT16L	5	16		28		70		48	34	6	31	22	4.5	7.5	4.1	0.015	0.015	125	240	0.171
LMT20L	5	20		32		80		54	38	8	36	24	5.5	9	5.1	0.020	0.020	143	280	0.211
LMT25L	6	25	0	40	-0.019	112		62	46	8	40	32	5.5	9	5.1	0.020	0.020	159	320	0.390
LMT30L	6	30		45		123	0	74	51	10	49	35	6.6	11	6.1	0.025	0.025	254	560	0.560
LMT35L	6	35	0	52	0	135	-0.40	82	60	10	55	38	6.6	11	6.1	0.025	0.025	270	640	0.870
LMT40L	6	40	-0.015	60	-0.022	151 (154)		96	70	13	64	45	9	14	8.1	0.025	0.025	350	820	1.380



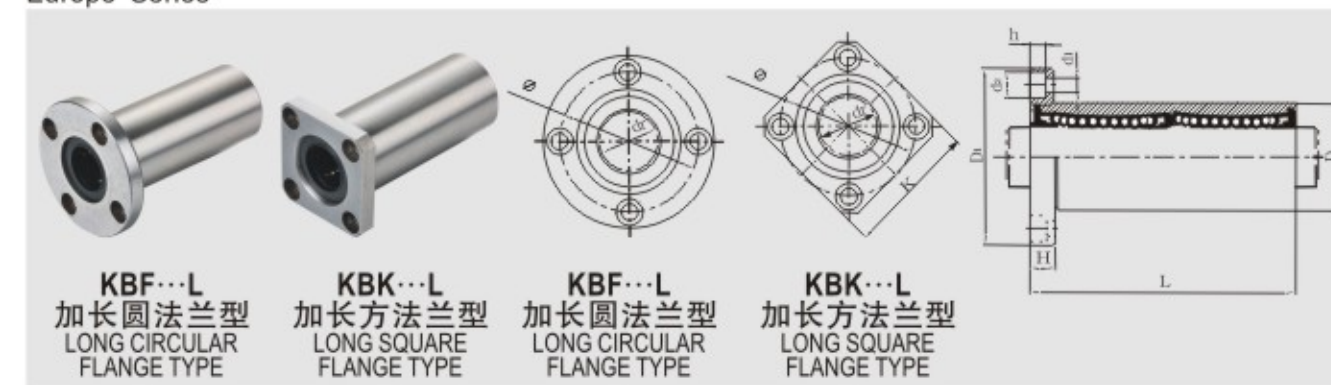
LMTC...L 加长中间式对边法兰型直线轴承
 LMTC...L Long centered oval flange type

亚洲系列
 Asia Series



KBF...L 加长圆法兰型直线轴承
 KBF...L Long circular flange type

KBK...L 加长方法兰型直线轴承
 KBK...L Long square flange type
 欧洲系列
 Europe Series

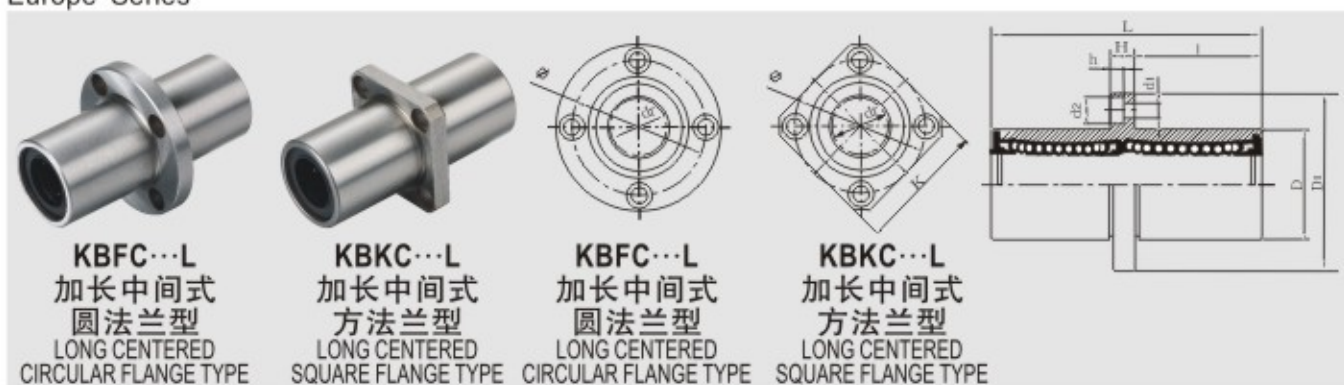


型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰垂直度 SQUAR- ENESS	径向跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)				
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC Co(kgf)	静 STATIC Co(kgf)					
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	W	H	A	F						d1	d2	h	
LMTC6L	4	6	0	12	0	35	0	15	28	18	5	20	3.5	6	3.1	0.015	0.015	33	54	0.040	
LMTC8L	4	8	0	15	-0.013	45	0	20	32	21	5	24	3.5	6	3.1	0.015	0.015	44	80	0.062	
LMTC10L	4	10	0	19	-0.010	55	0	24.5	40	25	6	29	4.5	7.5	4.1	0.015	0.015	60	112	0.114	
LMTC12L	4	12	0	21	-0.016	57	0	25.5	42	27	6	32	4.5	7.5	4.1	0.015	0.015	67	122	0.124	
LMTC13L	4	13	0	23	-0.016	61	0	27.5	43	29	6	33	4.5	7.5	4.1	0.015	0.015	83	160	0.144	
LMTC16L	5	16	0	28	-0.016	70	0	32	48	34	6	31	22	4.5	7.5	4.1	0.015	0.015	125	240	0.170
LMTC20L	5	20	0	32	-0.016	80	0	36	54	38	8	36	24	5.5	9	5.1	0.020	0.020	143	280	0.210
LMTC25L	6	25	0	40	-0.019	112	0	52	62	46	8	40	32	5.5	9	5.1	0.020	0.020	159	320	0.480
LMTC30L	6	30	0	45	-0.019	123	0	56.5	74	51	10	49	35	6.6	11	6.1	0.025	0.025	254	560	0.576
LMTC35L	6	35	0	52	-0.022	135	0	62.5	82	60	10	55	38	6.6	11	6.1	0.025	0.025	270	640	0.940
LMTC40L	6	40	0	60	-0.022	151 (154)	0	69 (70.5)	96	70	13	64	45	9	14	8.1	0.025	0.025	350	820	1.470

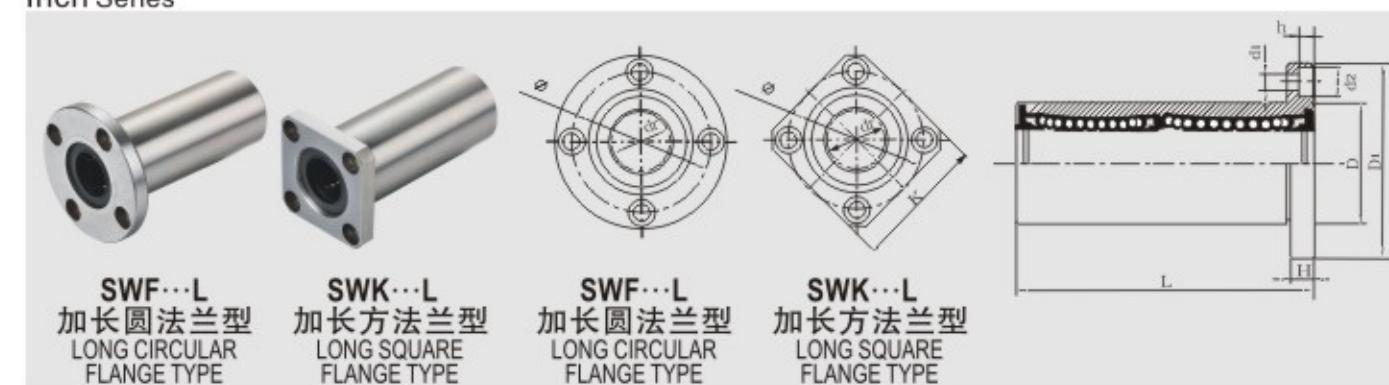
型号 MODEL NO.	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰垂直度 SQUAR- ENESS	径向跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
			内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC Co(kgf)	静 STATIC Co(kgf)	F	K		
			dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	φ	d1							d2	h
KBF8L	KBK8L	4	8	0	16	0	46	0	32	25	5	24	3.5	6	3.1	0.015	0.015	43	82	0.052	0.049
KBF10L	KBK10L	4	10	+0.009 -0.001	19	0	55	0	40	30	6	29	4.5	7.5	4.1	0.015	0.015	60	112		
KBF12L	KBK12L	4	12	0	22	-0.011	61	0	42	32	6	32	4.5	7.5	4.1	0.015	0.015	83	160	0.117	0.098
KBF16L	KBK16L	5	16	-0.011 -0.001	26	0	68	0	46	35	6	36	4.5	7.5	4.1	0.015	0.015	94	182	0.141	0.122
KBF20L	KBK20L	5	20	-0.011 -0.001	32	0	80	0	54	42	8	43	5.5	9	5.1	0.017	0.017	140	280	0.248	0.215
KBF25L	KBK25L	6	25	+0.013 -0.002	40	0	112	0	62	50	8	51	5.5	9	5.1	0.017	0.017	160	320	0.510	0.500
KBF30L	KBK30L	6	30	+0.013 -0.002	47	0	123	0	76	60	10	62	6.6	11	6.1	0.020	0.020	225	560	0.782	0.710
KBF40L	KBK40L	6	40	0	62	0	151	0	98	75	13	80	9	14	8.1	0.020	0.020	350	820	1.700	1.540
KBF50L	KBK50L	6	50	+0.016 -0.004	75	0	192	0	112	88	13	94	9	14	8.1	0.025	0.025	620	1622	3.479	2.890
KBF60L	KBK60L	6	60	0	90	0	209	0	134	106	18	112	11	17.5	10.8	0.025	0.025	770	2040	4.330	3.920



KBFC...L 加长中间式圆法兰型直线轴承
 KBFC...L Long centered circular flange type
 KBKC...L 加长中间式方法兰型直线轴承
 KBKC...L Long centered square flange type
 欧洲系列
 Europe Series



SWF...L 加长圆法兰型直线轴承
 SWF...L Long circular flange type
 SWK...L 加长方法兰型直线轴承
 SWK...L Long square flange type
 英制系列
 Inch Series



型号 MODEL NO.	型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)				
			内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC Co(kg)	静 STATIC Co(kg)	F	K			
			dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	φ	d1							d2	h	
KBFC8L	KBKC8L	4	8		16	0 -0.009	46	±0.30	20.5	32	25	5	24	3.5	6	3.1	0.015	0.015	43	82	0.052	0.049
KBFC12L	KBKC12L	4	12	+0.009 -0.001	22		61		27.5	42	32	6	32	4.5	7.5	4.1			83	160	0.117	0.099
KBFC16L	KBKC16L	5	16	+0.011 -0.001	26	0 -0.011	68	0 -0.30	31	46	35	6	36	4.5	7.5	4.1			94	182	0.146	0.121
KBFC20L	KBKC20L	5	20		32		80		36	54	42	8	43	5.5	9	5.1			140	280	0.248	0.207
KBFC25L	KBKC25L	6	25	+0.013 -0.002	40	0 -0.013	112		52	62	50	8	51	5.5	9	5.1	0.017	0.017	160	320	0.570	0.469
KBFC30L	KBKC30L	6	30		47		123		56.5	76	60	10	62	6.6	11	6.1			225	560	0.782	0.750
KBFC40L	KBKC40L	6	40	+0.016 -0.004	62	0 -0.015	151	0 -0.40	69	98	75	13	80	9	14	8.1	0.02	0.02	350	820	1.700	1.515
KBFC50L	KBKC50L	6	50		75		192		89.5	112	88	13	94	9	14	8.1			620	1622	3.479	2.490
KBFC60L	KBKC60L	6	60		90	0 -0.020	209		95.5	134	106	18	112	11	17.5	10.8	0.025	0.025	770	2040	4.336	3.920

型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰 垂直度 SQUAR- ENESS	径向 跳动 ECCEN- TRICITY (MAX.)	基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC Co(kg)	静 STATIC Co(kg)	F	K		
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	φ	d1							d2	h
SWF04L	SWK04L	4	1/4" 6.35	0.5" 12.7	0 -0.013	1.375" 34.925	±0.30	1.25" 31.75	1"	0.219" 5.556	0.875" 22.225	0.156" 3.969	0.25" 6.35	0.141" 3.572	0.015	0.015	33	54	0.08	0.05
SWF06L	SWK06L	4	3/8" 9.525	0.625" 15.875		1.5938" 40.481		1.5" 38.1	1.25" 31.75	0.25" 6.35	1.062" 26.988	0.1875" 4.763	0.297" 7.541	0.172" 4.366			36	64	0.09	0.07
SWF08L	SWK08L	4	1/2" 12.7	0.875" 22.225	0 -0.016	2.375" 60.325		1.75" 44.45	1.375" 34.925	0.25" 6.35	1.312" 33.338	0.1875" 4.763	0.297" 7.541	0.172" 4.366			83	160	0.2	0.15
SWF10L	SWK10L	4	5/8" 15.875	1.125" 28.575		2.8125" 71.438	0 -0.30	2" 50.8	1.5" 38.1	0.25" 6.35	1.562" 39.688	0.1875" 4.763	0.297" 7.541	0.172" 4.366			125	240	0.3	0.25
SWF12L	SWK12L	4	3/4" 19.05	1.25" 31.75	0 -0.019	3.0937" 78.581		2.1875" 55.563	1.6875" 42.863	0.3125" 7.938	1.718" 43.66	0.2187" 5.556	0.344" 8.731	0.203" 5.159	0.020	0.020	140	280	0.4	0.35
SWF16L	SWK16L	6	1" 25.4	1.5625" 39.688		4.2813" 108.744		2.5" 63.5	2" 50.8	0.3125" 7.938	2.031" 51.594	0.2187" 5.556	0.344" 8.731	0.203" 5.159			160	320	0.7	0.6
SWF20L	SWK20L	6	1-1/4" 31.75	2" 50.8	0 -0.022	5" 127	0 -0.40	3.125" 79.375	2.5" 63.5	0.375" 9.525	2.5625" 65.088	0.2812" 7.144	0.406" 10.319	0.2656" 6.747	0.025	0.025	225	560	1.25	1.15
SWF24L	SWK24L	6	1-1/2" 38.1	2.375" 60.325		5.6875" 144.463		3.75" 95.25	3" 76.2	0.5" 12.7	3.0625" 77.788	0.344" 8.731	0.5" 12.7	0.328" 8.334			350	820	2.5	2.0
SWF32L	SWK32L	6	2" 50.8	3" 76.2	0 -0.025	7.75" 196.85		4.375" 111.125	3.5" 88.9	0.5" 12.7	3.6875" 93.662	0.344" 8.731	0.5" 12.7	0.328" 8.334	0.030	0.030	620	1622	4	3.5

注: SWF16L钢保持器球列数5列, 工程塑料保持器球列数6列。
 Annotate: SWF16L steel retainer the number of ball rows is 5, POM retainer the number of ball rows is 6.


SWFC...L加长中间式圆法兰型直线轴承

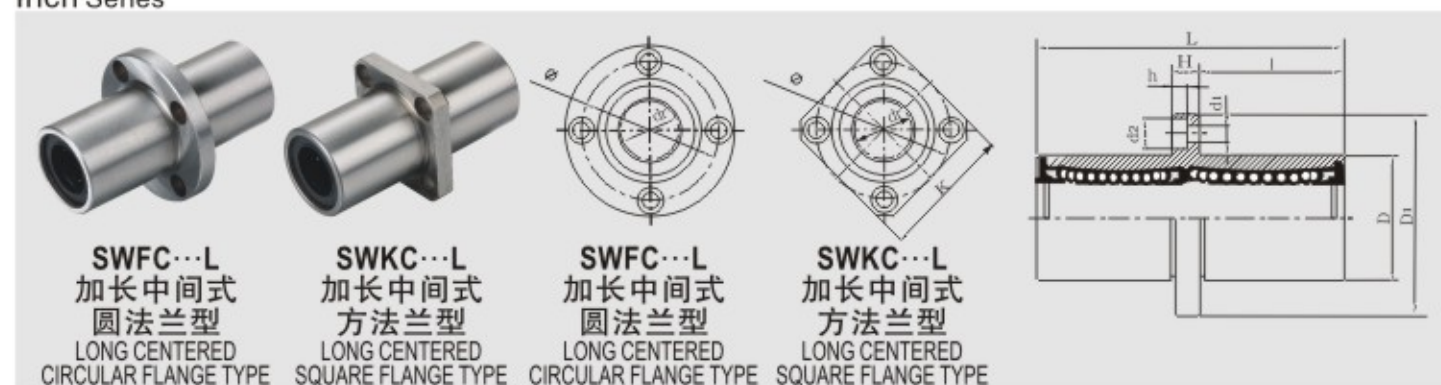
SWFC...L Long centered circular flange type

SWKC...L加长中间式方法兰型直线轴承

SWKC...L Long centered square flange type

英制系列

Inch Series


SWFC...L
 加长中间式
 圆法兰型
 LONG CENTERED
 CIRCULAR FLANGE TYPE

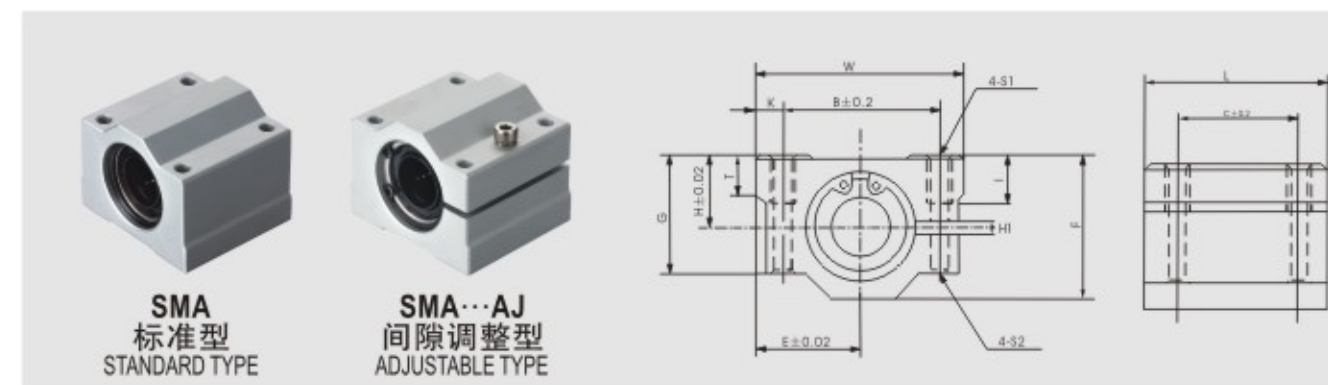
SWKC...L
 加长中间式
 方法兰型
 LONG CENTERED
 SQUARE FLANGE TYPE

SWFC...L
 加长中间式
 圆法兰型
 LONG CENTERED
 CIRCULAR FLANGE TYPE

SWKC...L
 加长中间式
 方法兰型
 LONG CENTERED
 SQUARE FLANGE TYPE

LM系列轴承座

LM Series case unit


SMA
 标准型
 STANDARD TYPE

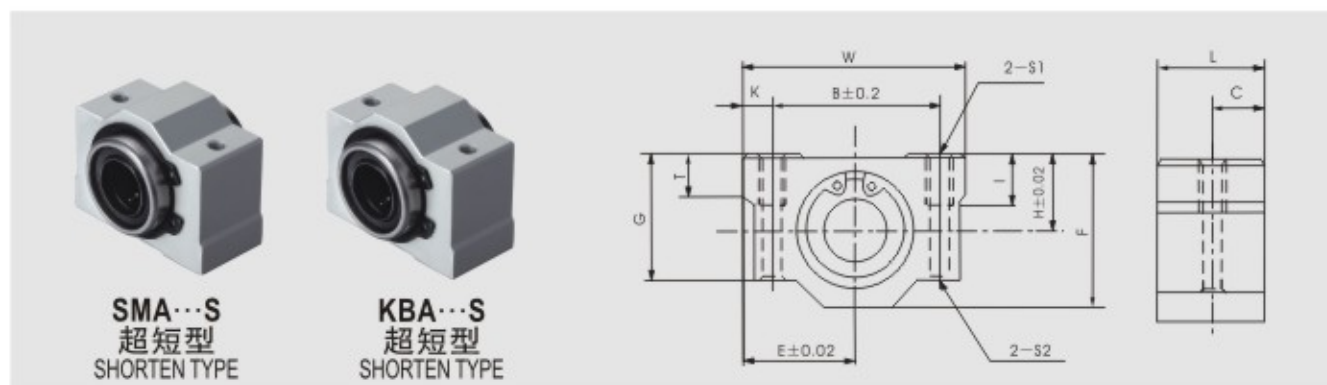
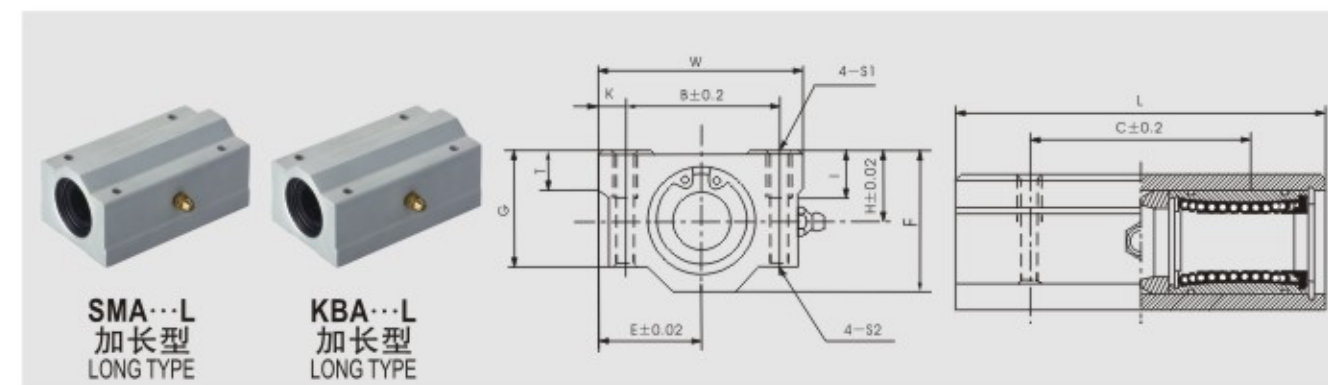
SMA...AJ
 间隙调整型
 ADJUSTABLE TYPE

型号 MODEL NO.	球列数 NUMBER OF BALL ROWS	主要尺寸 MAIN DIMENSIONS											法兰垂直度 SQUAR- ENESS	径向跳动 ECCEN- TRICITY (MAX.)	基本额定 载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)			
		内径 INSCRIBED CIRCLE DIAMETER		外径 OUTER DIAMETER		长度 LENGTH		法兰 FLANGE				连接孔 HOLE FOR ATTACHMENT			动 DYNAMIC C(kg)	静 STATIC Co(kgf)	F	K		
		dr	公差 TOLERANCE	D	公差 TOLERANCE	L	公差 TOLERANCE	D1	K	H	φ	d1							d2	h
SWFC04L SWKC04L	4	1/4" 6.35	0	0.5" 12.7	0	-0.013	1.375" 34.925	±0.30	0.5781" 14.684	1.25" 31.75	1" 25.4	0.2188" 5.556	0.875" 22.225	0.156" 3.969	0.25" 6.35	0.141" 3.572	33	54	0.08	0.05
SWFC06L SWKC06L	4	3/8" 9.525	0	0.625" 15.875	0	-0.016	1.5938" 40.481	±0.30	0.6719" 17.066	1.5" 38.1	1.25" 31.75	0.25" 6.35	1.062" 26.988	0.1875" 4.763	0.297" 7.541	0.172" 4.366	36	64	0.09	0.07
SWFC08L SWKC08L	4	1/2" 12.7	0	0.875" 22.225	0	-0.016	2.375" 60.325	±0.30	1.0625" 26.988	1.75" 44.45	1.375" 34.925	0.25" 6.35	1.312" 33.338	0.1875" 4.763	0.297" 7.541	0.172" 4.366	83	160	0.2	0.15
SWFC10L SWKC10L	4	5/8" 15.875	0	1.125" 28.575	0	-0.016	2.8125" 71.438	±0.30	1.2813" 32.544	2" 50.8	1.5" 38.1	0.25" 6.35	1.562" 39.688	0.1875" 4.763	0.297" 7.541	0.172" 4.366	125	240	0.3	0.25
SWFC12L SWKC12L	4	3/4" 19.05	0	1.25" 31.75	0	-0.019	3.0937" 78.581	±0.30	1.3906" 35.322	2.1875" 55.563	1.6875" 42.863	0.3125" 7.938	1.718" 43.66	0.2187" 5.556	0.344" 8.731	0.203" 5.159	140	280	0.4	0.35
SWFC16L SWKC16L	6	1" 25.4	0	1.5625" 39.688	0	-0.019	4.2813" 108.744	±0.30	1.9844" 50.403	2.5" 63.5	2" 50.8	0.3125" 7.938	2.031" 51.594	0.2187" 5.556	0.344" 8.731	0.203" 5.159	160	320	0.7	0.6
SWFC20L SWKC20L	6	1-1/4" 31.75	0	2" 50.8	0	-0.022	5" 127	±0.40	2.3125" 58.738	3.125" 79.375	2.5" 63.5	0.375" 9.525	2.5625" 65.088	0.2812" 7.144	0.406" 10.319	0.2656" 6.747	225	560	1.25	0.15
SWFC24L SWKC24L	6	1-1/2" 38.1	0	2.375" 60.325	0	-0.016	5.6875" 144.463	±0.40	2.5938" 65.882	3.75" 95.25	3" 76.2	0.5" 12.7	3.0625" 77.788	0.344" 8.731	0.5" 12.7	0.328" 8.334	350	820	2.5	2.0
SWFC32L SWKC32L	6	2" 50.8	0	3" 76.2	0	-0.025	7.75" 196.85	±0.40	3.625" 92.075	4.375" 111.125	3.5" 88.9	0.5" 12.7	3.6875" 93.662	0.344" 8.731	0.5" 12.7	0.328" 8.334	620	1622	4	3.5

 注: SWKC16L钢保持器球列数5列, 工程塑料保持器球列数6列。
 Annotate: SWKC16L steel retainer the number of ball rows is 5, POM retainer the number of ball rows is 6.

型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS							安装尺寸 MOUNTING DIMENSION						重量 WEIGHT (Kg)	
		H	E	W	L	F	G	H ₁	B	C	K	S1	S2	I		
SMA8	SMA8AJ	8	11	17	34	30	22	18	1.5	24	18	5	M4	3.4	8	0.052
SMA10	SMA10AJ	10	13	20	40	35	26	21	1.5	28	21	6	M5	4.3	12	0.092
SMA12	SMA12AJ	12	15	21	42	36	28	24	1.5	30.5	26	5.75	M5	4.3	12	0.102
SMA13	SMA13AJ	13	15	22	44	39	30	24.5	1.5	33	26	5.5	M5	4.3	12	0.120
SMA16	SMA16AJ	16	19	25	50	44	38.5	32.5	2	36	34	7	M5	4.3	12	0.200
SMA20	SMA20AJ	20	21	27	54	50	41	35	2	40	40	7	M6	5.2	12	0.255
SMA25	SMA25AJ	25	26	38	76	67	51.5	42	2	54	50	11	M8	7	18	0.600
SMA30	SMA30AJ	30	30	39	78	72	59.5	49	2	58	58	10	M8	7	18	0.735
SMA35	SMA35AJ	35	34	45	90	80	68	54	2	70	60	10	M8	7	18	1.100
SMA40	SMA40AJ	40	40	51	102	90	78	62	2	80	60	11	M10	8.7	25	1.590
SMA50	SMA50AJ	50	52	61	122	110	102	80	2	100	80	11	M10	8.7	25	3.340
SMA60	SMA60AJ	60	58	66	132	122	114	94	2	108	90	12	M12	10.7	25	4.720

 注: SMA配LM系列轴承。
 SMA...AJ配LM...AJ系列轴承。
 Annotate: SMA use the LM series bearing
 SMA...AJ use the LM...AJ series bearing

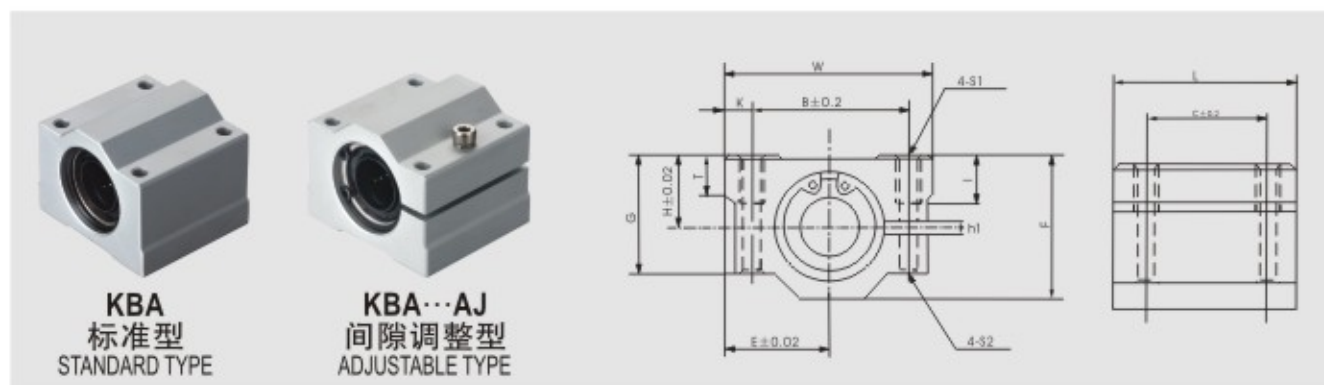

 LM/KB系列轴承座
 LM/KB Series case unit

 LM/KB系列轴承座
 LM/KB Series case unit


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS										安装尺寸 MOUNTING DIMENSION						重量 WEIGHT (Kg)	
		H	E	W	L		F	G	T	B	C		K	S1	S2	I	SMAS	KBAS	
					SMAS	KBAS					SMAS	KBAS							
SMA8S	KBA8S	8	11	17	34	15.5	14.5	22	18	6	24	7.75	7.25	5	M4	3.4	8	0.027	0.025
SMA10S	KBA10S	10	13	20	40	20	20	26	21	8	28	10	10	6	M5	4.3	12	0.053	0.053
SMA12S		12	15	21	42	21		28	24	8	30.5	10.5		5.75	M5	4.3	12	0.060	
SMA13S	KBA12S	13	15	22	44	20.6	20.9	30	24.5	8	33	10.3	10.45	5.5	M5	4.3	12	0.064	0.065
SMA16S	KBA16S	16	19	25	50	24.1	22.5	38.5	32.5	9	36	12.05	11.25	7	M5	4.3	12	0.110	0.100
SMA20S	KBA20S	20	21	27	54	28.1	29.1	41	35	11	40	14.05	14.55	7	M6	5.2	12	0.144	0.148
SMA25S	KBA25S	25	26	38	76	38	41.1	51.5	42	12	54	19	20.55	11	M8	7	18	0.340	0.368
SMA30S	KBA30S	30	30	39	78	41.5	49.1	59.5	49	15	58	20.75	24.55	10	M8	7	18	0.424	0.500
SMA35S		35	34	45	90	45.5		68	54	18	70	22.75		10	M8	7	18	0.626	
SMA40S	KBA40S	40	40	51	102	56.5	56.6	78	62	20	80	28.25	28.3	11	M10	8.7	25	1.000	1.000
SMA50S	KBA50S	50	52	61	122	69	72.6	102	80	25	100	34.5	36.3	11	M10	8.7	25	2.100	2.205

注: SMA...S配LM系列轴承。
 KBA...S配KB系列轴承。
 Annotate: SMA...S use the LM series bearing
 KBA...S use the KB series bearing

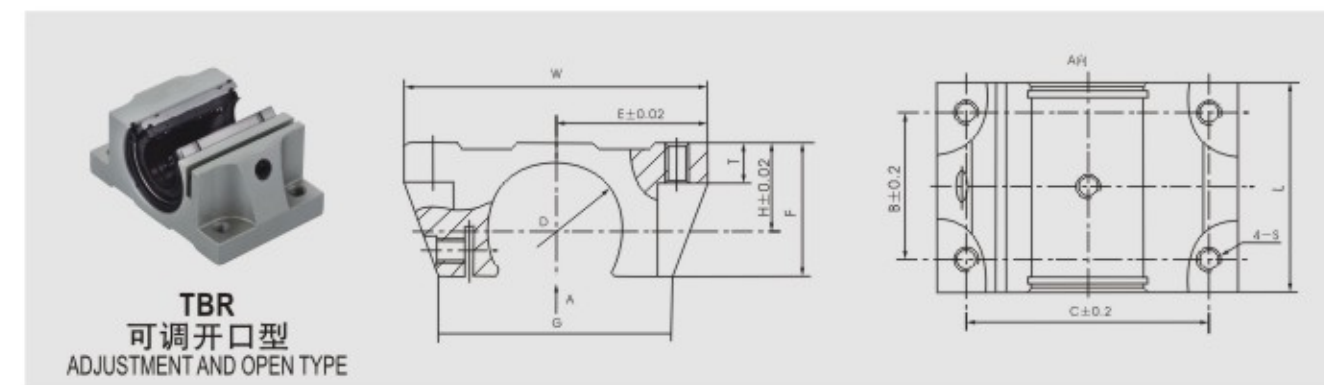
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS										安装尺寸 MOUNTING DIMENSION						重量 WEIGHT (Kg)	
		H	E	W	L		F	G	T	B	C		K	S1	S2	I	SMAL	KBAL	
					SMAL	KBAL					SMAL	KBAL							
SMA8L	KBA8L	8	11	17	34	58	58	22	18	6	24	42	42	5	M4	3.4	8	0.100	0.100
SMA10L	KBA10L	10	13	20	40	68	68	26	21	8	28	46	46	6	M5	4.3	12	0.180	0.180
SMA12L		12	15	21	42	70		28	24	8	30.5	50		5.75	M5	4.3	12	0.200	
SMA13L	KBA12L	13(12)	15	22	44	75	77	30	24.5	8	33	50	64	5.5	M5	4.3	12	0.230	0.237
SMA16L	KBA16L	16	19	25	50	85	89	38.5	32.5	9	36	60	79	7	M5	4.3	12	0.390	0.405
SMA20L	KBA20L	20	21	27	54	96	100	41	35	11	40	70	90	7	M6	5.2	12	0.490	0.510
SMA25L	KBA25L	25	26	38	76	130	136	51.5	42	12	54	100	119	11	M8	7	18	1.165	1.220
SMA30L	KBA30L	30	30	39	78	140	154	59.5	49	15	58	110	132	10	M8	7	18	1.430	1.580
SMA35L		35	34	45	90	155		68	54	18	70	120		10	M8	7	18	2.130	
SMA40L	KBA40L	40	40	51	102	175	180	78	62	20	80	140	150	11	M10	8.7	25	3.090	3.180
SMA50L	KBA50L	50	52	61	122	215	230	102	80	25	100	160	200	11	M10	8.7	25	6.530	6.990

注: SMA...L配二套LM系列轴承。
 KBA...L配二套KB系列轴承。
 Annotate: SMA...L use the LM series bearing
 KBA...L use the KB series bearing


KB系列轴承座
 KB Series case unit


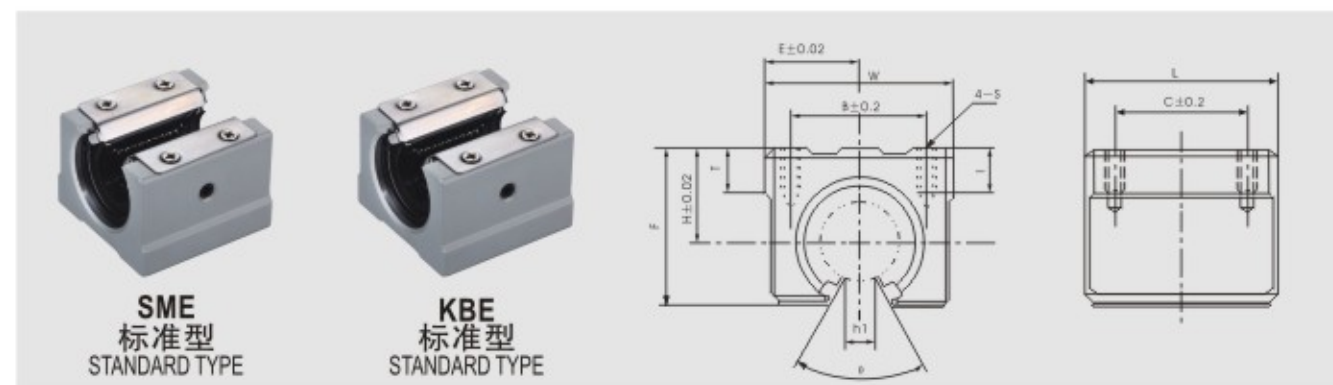
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS								安装尺寸 MOUNTING DIMENSION						重量 WEIGHT (Kg)	
		H	E	W	L	F	G	h1	T	B	C	K	S1	S2	I		
KBA8	KBA8AJ	8	11	17	34	30	22	18	1.5	6	24	18	5	M4	3.4	8	0.052
KBA10	KBA10AJ	10	13	20	40	35	26	21	1.5	8	28	21	6	M5	4.3	12	0.092
KBA12	KBA12AJ	12	15	22	44	39	30	24.5	1.5	8	33	26	5.5	M5	4.3	12	0.120
KBA16	KBA16AJ	16	19	25	50	44	38.5	32.5	2	9	36	34	7	M5	4.3	12	0.200
KBA20	KBA20AJ	20	21	27	54	53	41	35	2	11	40	40	7	M6	5.2	12	0.270
KBA25	KBA25AJ	25	26	38	76	67	51.5	42	2	12	54	50	11	M8	7	18	0.600
KBA30	KBA30AJ	30	30	39	78	76	59.5	49	2	15	58	58	10	M8	7	18	0.776
KBA40	KBA40AJ	40	40	51	102	90	78	62	2	20	80	60	11	M10	8.7	25	1.590
KBA50	KBA50AJ	50	52	61	122	110	102	80	2	25	100	80	11	M10	8.7	25	3.340
KBA60	KBA60AJ	60	58	66	132	137	114	94	2	30	108	90	12	M12	10.7	25	4.800

注：KBA配KB系列轴承。
 KBA...AJ配KB...AJ系列轴承。
 Annotate: KBA use the KB series bearing
 KBA...AJ use the KB...AJ series bearing

LM系列可调型开口轴承座(也可配KB系列)
 LM series (or KB series) adjustment and open case unit


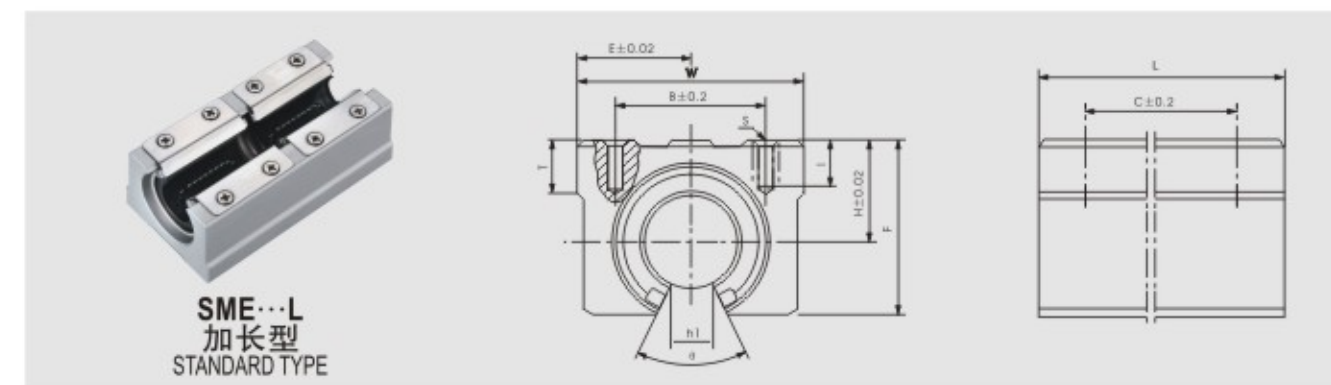
型号 MODEL NO.	D	H	E	T	F	G	W	B	C	L	S	重量 WEIGHT (Kg)
TBR16	28	17.86	31	8	27	48	62	30	50	42	M5	0.18
TBR20	32	20.99	34	10	31.4	52.4	68	37	54	51	M6	0.30
TBR25	40	28.0	41	12	41	61	82	50	65	65	M8	0.60
TBR30	45	33.48	45.5	12	48	65	91	60	75	75	M8	0.90

注：TBR配LM系列轴承。
 Annotate: TBR use the LM series bearing


 LM/KB系列开口轴承座
 LM/KB Series open case unit


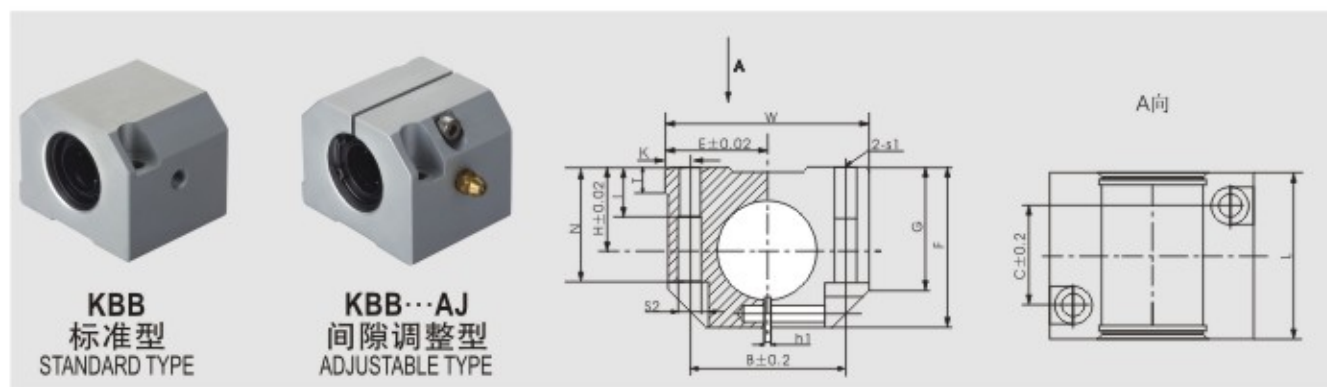
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS								安装尺寸 MOUNTING DIMENSION				基本额定载荷 BASIC LOAD RATING		重量 WEIGHT (Kg)		
		H	E	W	L	F	T	h1	θ		B	C	S	I	动 DYNAMIC C(kgf)		静 STATIC Co(kgf)	
									SME	KBE								
SME10	KBE10	10	15	18	36	32	24	7	6	80°	80°	25	20	M5	10	38	56	0.065
SME12	KBE12	12	17	20	40	39	27.6	8	8.5	80°	80°	28	26	M5	10	42(52)	61(79)	0.100
SME13		13	17	20	40	39	27.6	8	8.5	80°		28	26	M5	10	52	80	0.100
SME16	KBE16	16	20	22.5	45	45	33	9	10	80°	80°	32	30	M5	12	59	91	0.150
SME20	KBE20	20	23	24	48	50	39	11	10	60°	60°	35	35	M6	12	88	140	0.200
SME25	KBE25	25	27	30	60	65	47	14	11.5	50°	60°	40	40	M6	12	100	160	0.450
SME30	KBE30	30	33	35	70	70	56	15	14	50°	60°	50	50	M8	18	160	280	0.630
SME35		35	37	40	80	80	63	18	16	50°		55	55	M8	18	170	320	0.920
SME40	KBE40	40	42	45	90	90	72	20	19	50°	60°	65	65	M10	20	220	410	1.330
SME50	KBE50	50	53	60	120	110	92	25	23	50°	60°	94	80	M10	20	390	810	3.000

注：SME配LM...OP系列轴承。
 KBE配KB...OP系列轴承。
 Annotate: SME use the LM...OP series bearing
 KBE...AJ use the KB...OP series bearing

 LM系列加长型开口轴承座
 LM Series long type open case unit


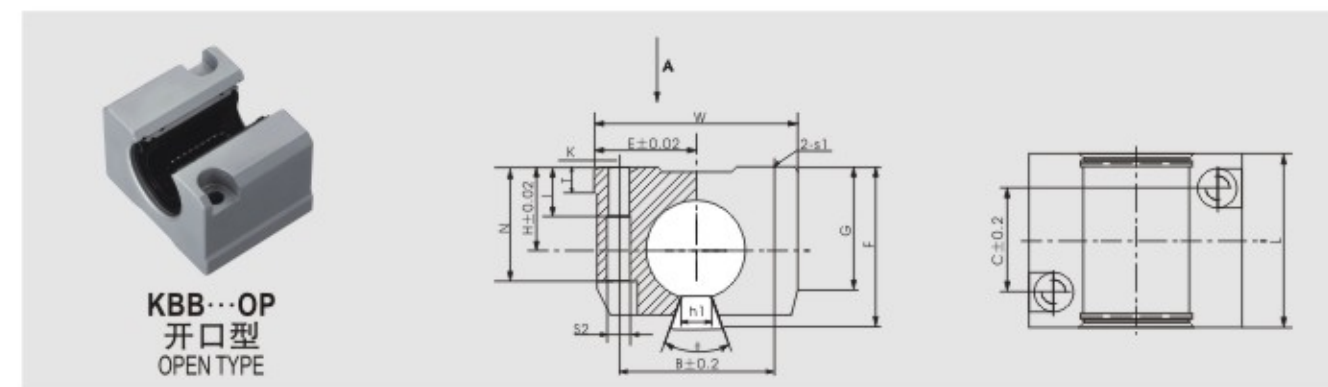
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS								安装尺寸 MOUNTING DIMENSION				重量 WEIGHT (Kg)
		H	E	W	L	F	T	h1	θ	B	C	S	I	
SME16L	16	20	22.5	45	85	33	9	10	80°	32	60	M5	12	0.29
SME20L	20	23	24	48	96	39	11	10	60°	35	70	M6	12	0.51
SME25L	25	27	30	60	130	47	14	11.5	50°	40	100	M6	12	0.98
SME30L	30	33	35	70	140	56	15	14	50°	50	110	M8	18	1.45
SME35L	35	37	40	80	155	63	18	16	50°	55	120	M8	18	1.80
SME40L	40	42	45	90	175	72	20	19	50°	65	140	M10	20	2.48

注：SME...L配二套LM...OP系列轴承。
 Annotate: SME...L use two pieces of LM...OP series bearing


KB系列轴承座
 KB Series case unit


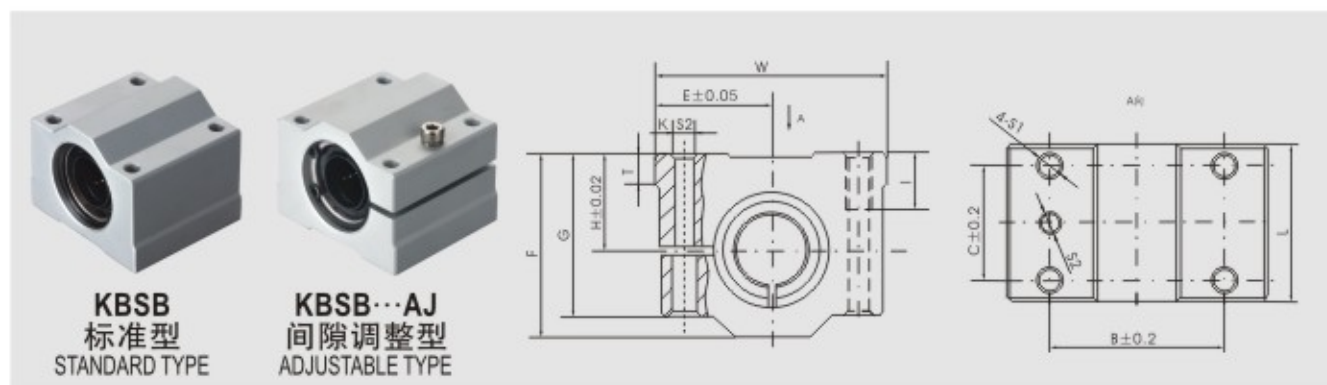
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS									安装尺寸 MOUNTING DIMENSION						重量 WEIGHT (Kg)	
		H	E	W	L	F	G	T	N	h1	B	C	S1	S2	I	K		
KBB16	KBB16AJ	16	22	26.5	53	43	42	32	7	30	1.5	40	26	M6	5.3	13	6.5	0.19
KBB20	KBB20AJ	20	25	30	60	54	50	39	7.5	34	2	45	32	M8	6.6	18	7.5	0.31
KBB25	KBB25AJ	25	30	39	78	67	60	48	8.5	40	2	60	40	M10	8.4	22	9	0.86
KBB30	KBB30AJ	30	35	43.5	87	79	70	57	9.5	48	2	68	45	M10	8.4	22	9.5	0.91
KBB40	KBB40AJ	40	45	54	108	91	90	60	10.5	60	3	86	58	M12	10.1	26	11	2.05

注：KBB配KB系列轴承。
 KBB...AJ配KB...AJ系列轴承。
 Annotate: KBB use the KB series bearing
 KBB...AJ use the KB...AJ series bearing

KB系列开口轴承座
 KB Series open case unit


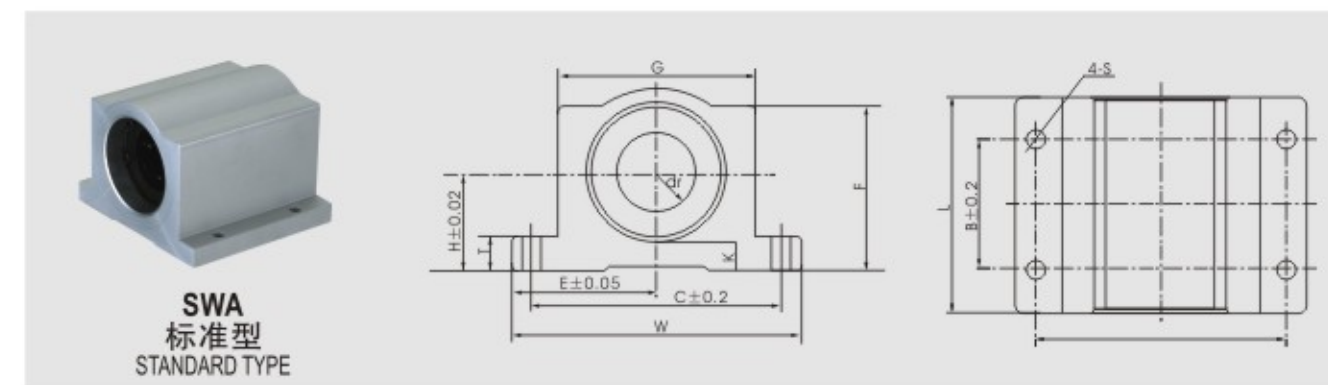
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS									安装尺寸 MOUNTING DIMENSION						重量 WEIGHT (Kg)	
		H	E	W	L	F	G	T	h1	N	θ	B	C	S1	S2	I		K
KBB16 OP	16	22	26.5	53	43	35	32	7	17.7	27	78°	40	26	M6	5.3	13	6.5	0.18
KBB20 OP	20	25	30	60	54	42	39	7.5	17.7	32	60°	45	32	M8	6.6	18	7.5	0.30
KBB25 OP	25	30	39	78	67	51	48	8.5	21.7	39	60°	60	40	M10	8.4	22	9	0.84
KBB30 OP	30	35	43.5	87	79	60	57	9.5	21.5	48	50°	68	45	M10	8.4	22	9.5	0.89
KBB40 OP	40	45	54	108	91	77	60	10.5	29	60	60°	86	58	M12	10.1	26	11	1.74

注：KBB...OP配KB...OP系列轴承。
 Annotate: KBB...OP use the KB...OP series bearing


KB系列轴承座
 KB Series case unit


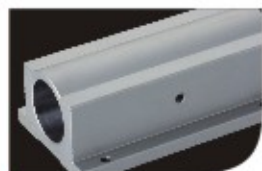
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS							安装尺寸 MOUNTING DIMENSION					重量 WEIGHT (Kg)		
		H	E	W	L	F	G	T	B	C	K	S1	S2		I	
KBSB12	KBSB12AJ	12	18	21.5	43	32	35	31	6	32	23	5.5	M5	M4	11	0.095
KBSB16	KBSB16AJ	16	22	26.5	53	36	42	37	7	40	26	6.5	M6	M5	13	0.161
KBSB20	KBSB20AJ	20	25	30	60	45	50	44	7.5	45	32	7.5	M8	M6	18	0.262
KBSB25	KBSB25AJ	25	30	39	78	58	60	52.5	8.5	60	40	9	M10	M8	22	0.487
KBSB30	KBSB30AJ	30	35	43.5	87	68	70	62	9.5	68	45	9.5	M10	M8	22	0.726
KBSB40	KBSB40AJ	40	45	54	108	80	90	80	11	86	58	12	M12	M10	26	1.276

注：KBSB配KB系列轴承。
 KBSB...AJ配KB...AJ系列轴承。
 Annotate: KBSB use the KB series bearing
 KBSB...AJ use the KB...AJ series bearing

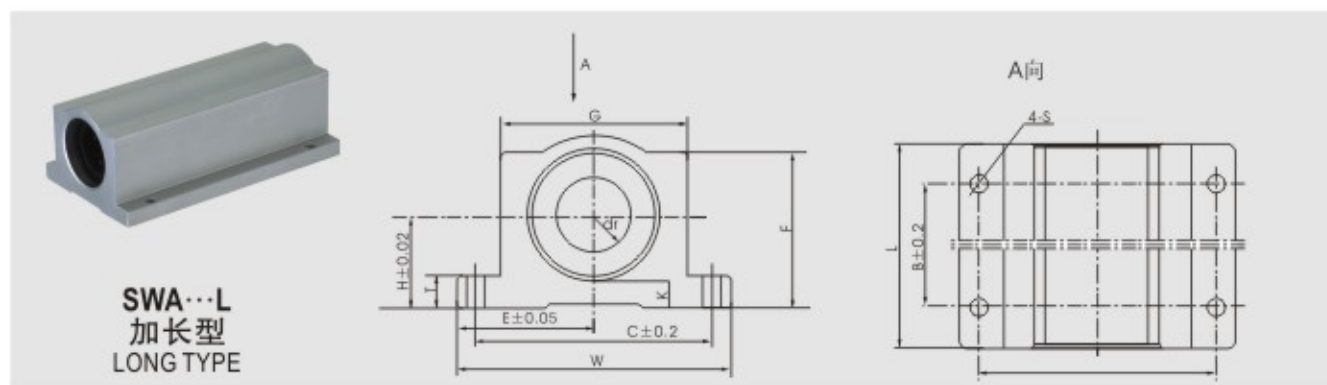
SWA轴承座
 SWA Case unit
 英制系列
 Inch series


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS						安装尺寸 MOUNTING DIMENSION					重量 WEIGHT (Lbs)
		H	E	W	L	F	T	G	K	B	C	S1	
SWA08	12.7	17.45	25.4	50.8	42.88	28.58	6.35	34.93	6.342	25.4	42.88	3.94	0.20
SWA10	15.875	22.22	31.75	63.5	49.2	36.5	7.14	44.45	7.94	28.58	53.98	4.7	0.50
SWA12	19.05	23.8	34.92	69.85	52.4	39.67	7.92	47.63	7.925	31.75	60.325	4.7	0.60
SWA16	25.4	30.15	41.28	82.55	71.45	49.2	9.53	60.33	10.3	44.45	73.03	5.5	1.2
SWA20	31.75	38.1	50.8	101.6	92.08	63.5	11.1	76.2	12.705	50.8	88.9	5.5	2.5
SWA24	38.1	44.45	60.32	120.65	101.6	74.6	12.7	88.9	14.29	63.5	104.78	7.1	3.8
SWA32	50.8	53.98	76.2	152.4	127	92.08	15.88	114.3	15.875	82.55	133.35	10.31	7.0

注：SWA配SSW系列轴承。
 Annotate: SWA use the SSW series bearing
 1 Lbs=0.454kg



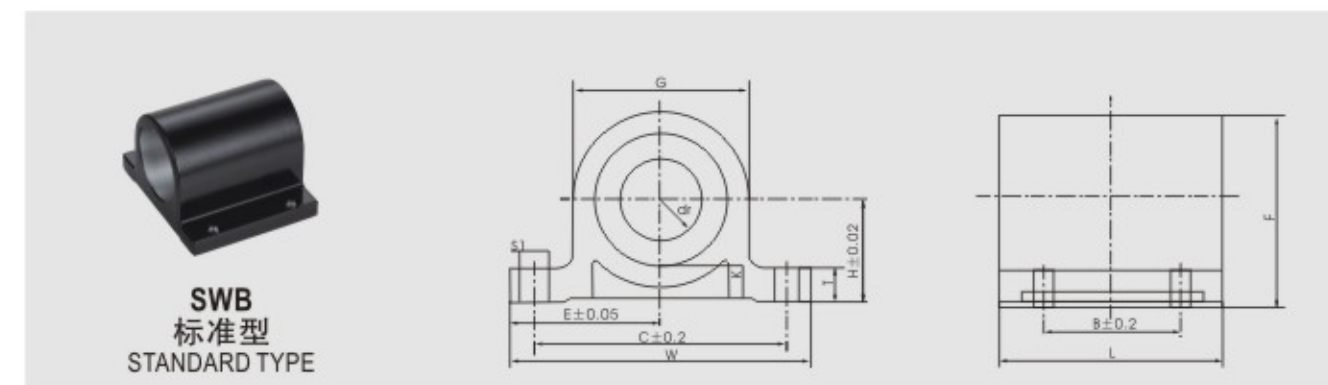
SWA 加长型轴承座
 SWA Long type case unit
 英制系列
 Inch Series



型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS						安装尺寸 MOUNTING DIMENSION					重量 WEIGHT (Lbs)
		H	E	W	L	F	T	G	K	B	C	S1	
SWA08L	12.7	17.45	25.4	50.8	88.9	28.58	6.35	34.93	6.342	63.5	42.88	3.94	0.4
SWA10L	15.875	22.22	31.75	63.5	101.6	36.5	7.14	44.45	7.94	76.2	53.98	4.7	1.0
SWA12L	19.05	23.8	34.92	69.85	114.3	39.67	7.92	47.63	7.925	88.9	60.325	4.7	1.2
SWA16L	25.4	30.15	41.28	82.55	152.4	49.2	9.53	60.33	10.3	114.3	73.03	5.5	2.4
SWA20L	31.75	38.1	50.8	101.6	190.5	63.5	11.1	76.2	12.705	139.7	88.9	5.5	5
SWA24L	38.1	44.45	60.32	120.65	228.6	74.6	12.7	88.9	14.29	165.1	104.78	7.1	7.8
SWA32L	50.8	53.98	76.2	152.4	254	92.08	15.88	114.3	15.875	209.55	133.35	10.31	14.5

注: SWA...L配二套SSW系列轴承。
 Annotate: SWA...L use two pieces of SSW series bearing
 1 Lbs=0.454kg

SWB轴承座
 SWB Case unit
 英制系列
 Inch Series

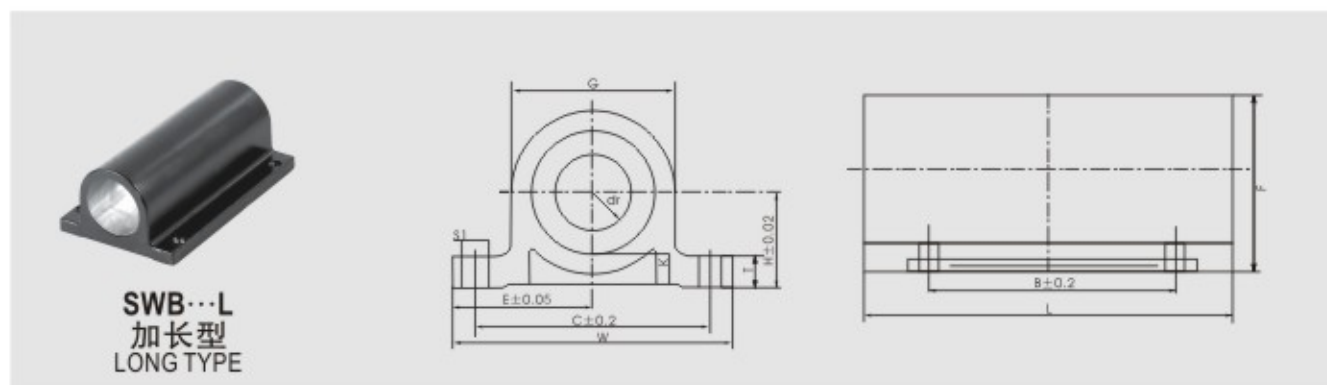


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS						安装尺寸 MOUNTING DIMENSION					重量 WEIGHT (Kg)
		H	E	W	L	F	T	G	K	B	C	S1	
SWB08	12.7	17.45	25.4	50.8	42.88	31.8	6.528	28.7	6.342	25.4	42.88	3.94	0.058
SWB12	19.05	23.8	34.92	69.85	52.4	44.42	7.93	41.25	7.925	31.75	60.325	4.75	0.136
SWB16	25.4	30.15	41.28	82.55	71.45	55.55	9.53	50.8	10.3	44.45	73.03	5.56	0.264
SWB20	31.75	38.1	50.8	101.6	92.08	72.21	11.88	66.65	12.705	50.8	88.9	5.56	0.585
SWB24	38.1	44.45	60.32	120.65	101.6	82.56	12.73	76.2	14.29	63.5	104.78	7.16	0.765
SWB32	50.8	53.97	76.2	152.4	127	103.18	15.87	98.4	15.88	82.55	133.35	10.34	1.578

注: SWB配SSW系列轴承。
 Annotate: SWB use the SSW series bearing



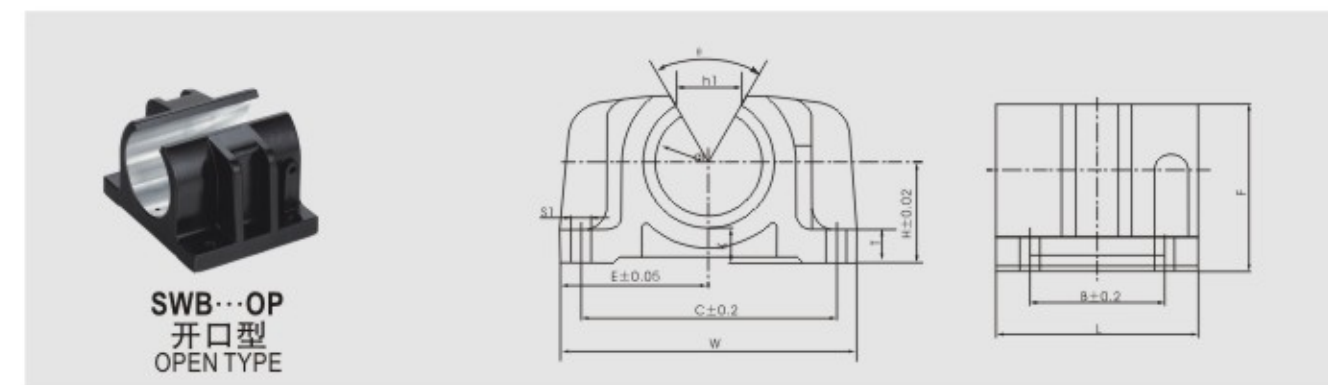
SWB 加长型轴承座
 SWB Long type case unit
 英制系列
 Inch series



型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS						安装尺寸 MOUNTING DIMENSION					重量 WEIGHT (Kg)
		H	E	W	L	F	T	G	K	B	C	S1	
SWB08L	12.7	17.45	25.4	50.8	88.9	31.8	6.528	28.7	6.342	63.5	42.88	3.94	0.116
SWB12L	19.05	23.8	34.92	69.85	114.3	44.42	7.93	41.25	7.925	88.9	60.325	4.75	0.292
SWB16L	25.4	30.15	41.28	82.55	152.4	55.55	9.53	50.8	10.3	114.3	73.03	5.56	0.570
SWB20L	31.75	38.1	50.8	101.6	190.5	72.21	11.88	66.65	12.705	139.7	88.9	5.56	1.155
SWB24L	38.1	44.45	60.32	120.65	228.6	82.56	12.73	76.2	14.29	165.1	104.78	7.16	1.688

注：SWB...L配二套SSW系列轴承。
 Annotate: SWB...L use two pieces of SSW series bearing

SWB开口型轴承座
 SWB Open type case unit
 英制系列
 Inch series

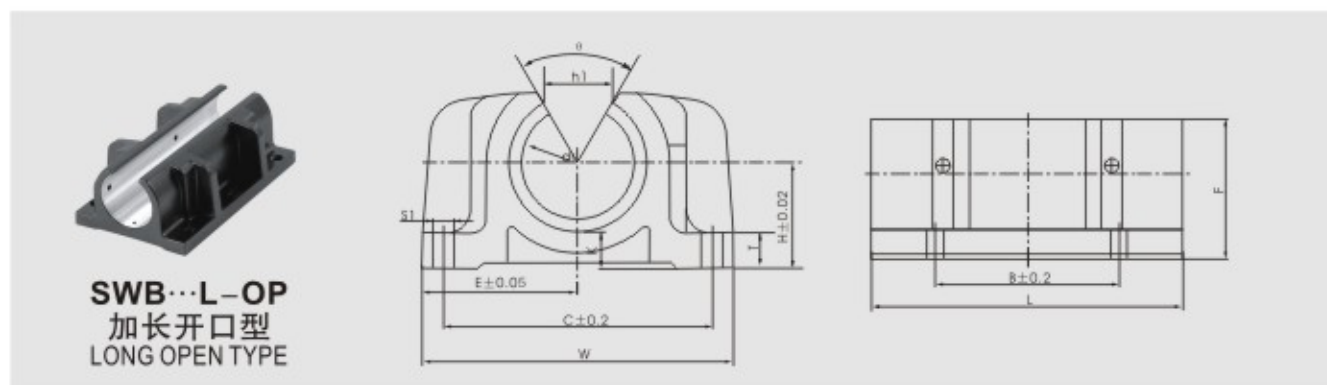


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS								安装尺寸 MOUNTING DIMENSION			重量 WEIGHT (Kg)	
		H	E	W	L	F	θ	T	h1	K	B	C		S1
SWB08OP	12.7	17.45	26.5	53	38.1	28.7	60°	6.53	10.64	6.342	25.4	42.88	3.96	0.060
SWB12OP	19.05	23.8	34.92	69.85	47.6	39.7	60°	7.87	15.87	7.925	31.75	60.325	4.75	0.135
SWB16OP	25.4	30.15	41.27	82.55	66.68	50.8	60°	9.53	19.3	10.3	44.45	73.03	5.56	0.268
SWB20OP	31.75	38.1	50.8	101.6	85.73	63.5	60°	11.88	24.2	12.705	50.8	88.9	5.56	0.536
SWB24OP	38.1	44.45	60.32	120.65	95.25	74.6	60°	12.7	29.5	14.29	63.5	104.78	7.16	0.794
SWB32OP	50.8	53.97	76.2	152.4	120.65	92.07	60°	15.8	37.3	15.88	82.55	133.35	10.34	1.350

注：SWB...OP配SSW...OP系列轴承。
 Annotate: SWB...OP use the SSW...OP series bearing



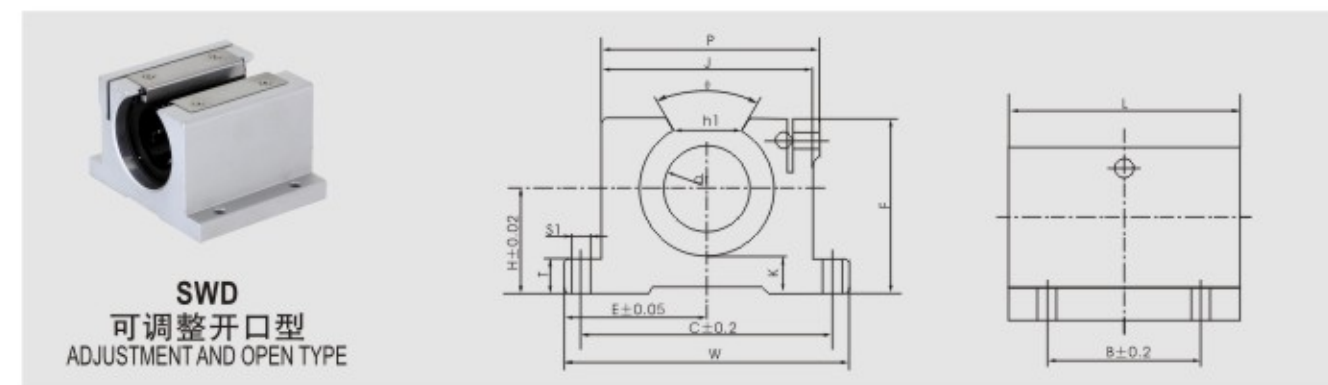
SWB 加长开口型轴承座
 SWB Long open type case unit
 英制系列
 Inch Series



型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS									安装尺寸 MOUNTING DIMENSION			重量 WEIGHT (Kg)
		H	E	W	L	F	θ	T	h1	K	B	C	S1	
SWB08L-OP	12.7	17.45	26.5	53	88.9	28.7	60°	6.53	10.64	6.342	63.5	42.88	3.96	0.123
SWB12L-OP	19.05	23.8	34.92	69.85	114.3	39.7	60°	7.87	15.87	7.925	88.9	60.325	4.75	0.305
SWB16L-OP	25.4	30.15	41.27	82.55	152.4	50.8	60°	9.53	19.3	10.3	114.3	73.03	5.56	0.612
SWB20L-OP	31.75	38.1	50.8	101.6	190.5	63.5	60°	11.88	24.2	12.705	139.7	88.9	5.56	1.128
SWB24L-OP	38.1	44.45	60.32	120.65	228.6	74.6	60°	12.7	29.5	14.29	165.1	104.78	7.16	1.778

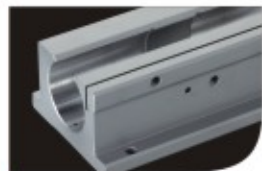
注：SWB...L-OP配SSW...OP系列轴承。
 Annotate: SWB...L-OP use the SSW...OP series bearing

SWD可调整型开口轴承座
 SWD Adjustment and open case unit
 英制系列
 Inch Series

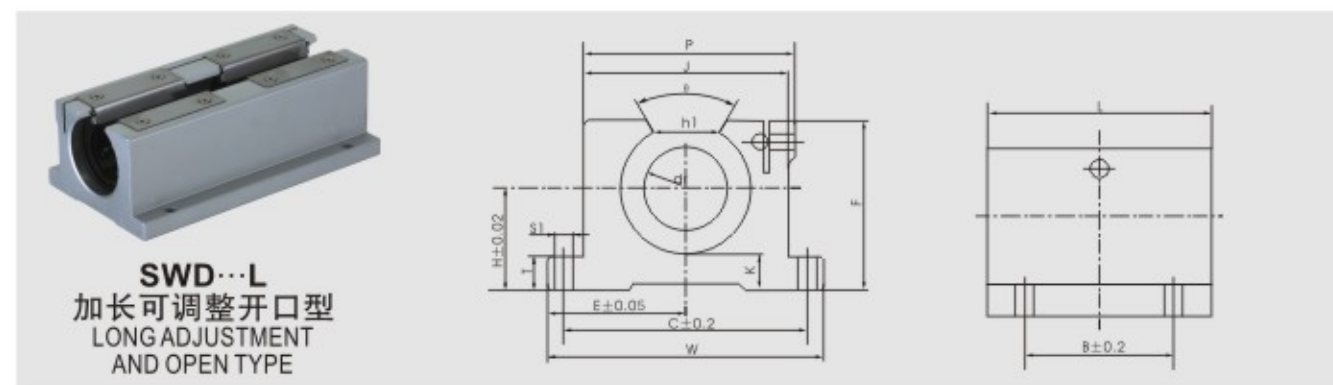


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS									安装尺寸 MOUNTING DIMENSION					重量 WEIGHT (Lbs)
		H	E	W	L	F	θ	T	h1	K	J	P	B	C	S1	
SWD08	12.7	17.45	25.4	50.8	38.1	28.5	60°	6.53	10.64	6.342	35.75	36.5	25.4	42.88	3.96	0.188
SWD10	15.875	22.22	31.75	63.5	44.45	36.53	60°	7.11	13.49	7.942	44.5	46.04	28.57	53.97	4.75	0.365
SWD12	19.05	23.8	34.92	69.85	47.6	39.7	60°	7.87	15.87	7.925	48.41	49.98	31.75	63.325	4.75	0.452
SWD16	25.4	30.15	41.27	82.55	66.67	50.8	60°	9.65	19.3	10.3	61.11	62.69	44.45	73.03	5.54	1.01
SWD20	31.75	38.1	50.8	101.6	85.72	63.5	60°	11.1	24.2	12.705	76.2	78.58	50.8	88.9	5.54	1.98
SWD24	38.1	44.45	60.32	120.65	95.25	74.6	60°	12.7	30.16	14.29	88.9	90.48	63.5	104.78	7.137	2.95
SWD32	50.8	53.98	76.2	152.4	120.65	91.96	60°	15.88	37.91	15.875	114	119	82.55	133.35	10.31	5.84

注：SWD配SSW...OP系列轴承。
 Annotate: SWD use the SSW...OP series bearing
 1 Lbs=0.454kg



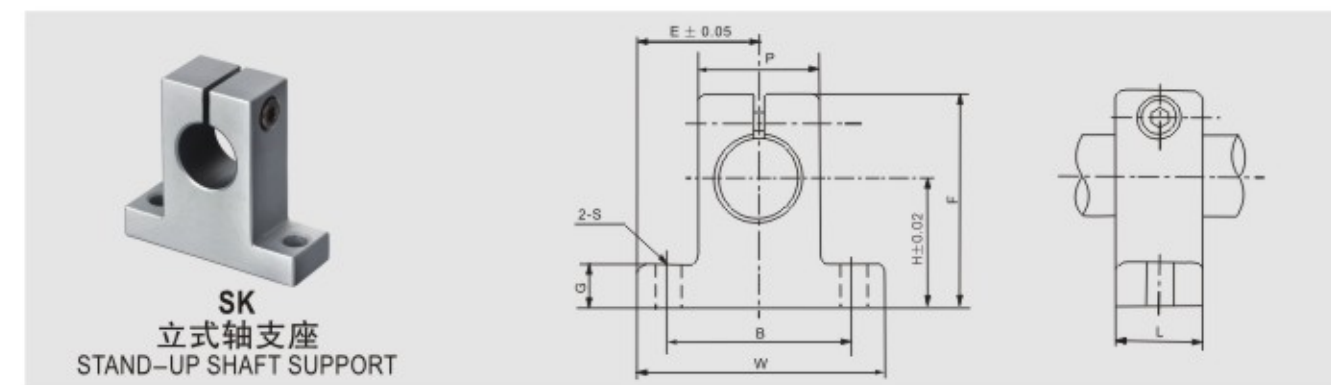
SWD加长可调整型开口轴承座
 SWD Long adjustment and open case unit
 英制系列
 Inch Series



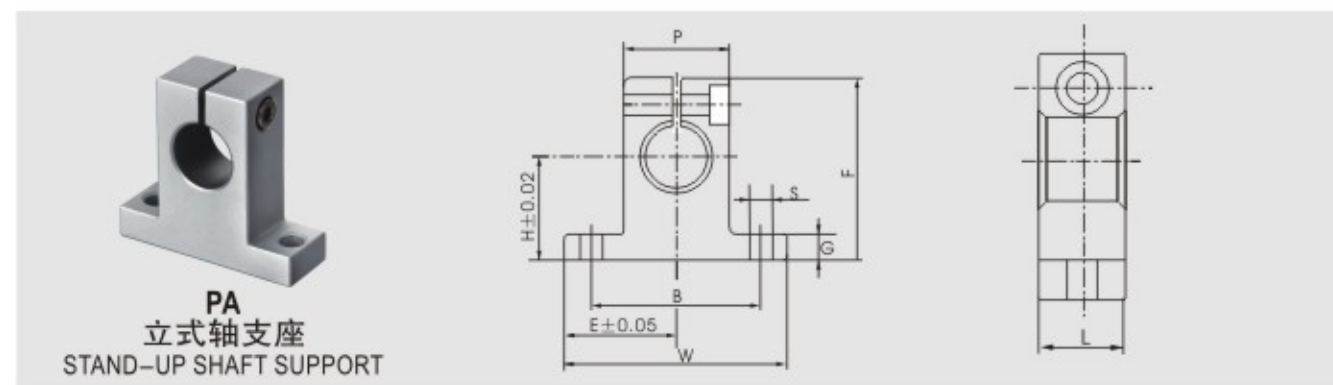
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS								安装尺寸 MOUNTING DIMENSION					重量 WEIGHT (Lbs)	
		H	E	W	L	F	θ	T	h1	K	J	P	B	C		S1
SWD08L	12.7	17.45	26.5	53	88.9	28.5	60°	6.53	10.64	6.342	35.75	36.5	63.5	42.88	3.96	0.4
SWD10L	15.875	22.22	31.75	63.5	101.6	36.53	60°	7.11	13.49	7.942	44.5	46.04	76.2	53.97	4.75	0.8
SWD12L	19.05	23.8	34.92	69.85	114.3	39.7	60°	7.87	15.87	7.925	48.41	49.98	88.9	63.325	4.75	1.0
SWD16L	25.4	30.15	41.27	82.55	152.4	50.8	60°	9.65	19.3	10.3	61.11	62.69	114.3	73.03	5.54	2.0
SWD20L	31.75	38.1	50.8	101.6	190.5	63.5	60°	11.1	24.2	12.705	76.2	78.58	139.7	88.9	5.54	4.2
SWD24L	38.1	44.45	60.32	120.65	228.6	74.6	60°	12.7	30.16	14.29	88.9	90.48	165.1	104.78	7.137	6.7
SWD32L	50.8	53.98	76.2	152.4	254	91.96	60°	15.88	37.91	15.875	114	119	209.55	133.35	10.31	12.2

注：SWD...L配二套SSW...OP系列轴承。
 Annotate: SWD...L use two pieces of SSW...OP series bearing
 1 Lbs=0.454kg

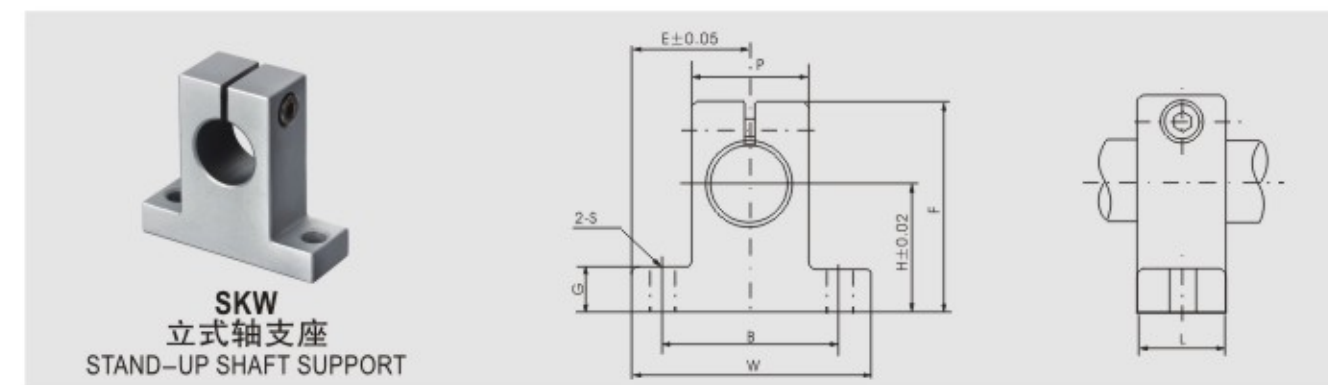
SK立式轴支座
 SK Stand-up shaft support



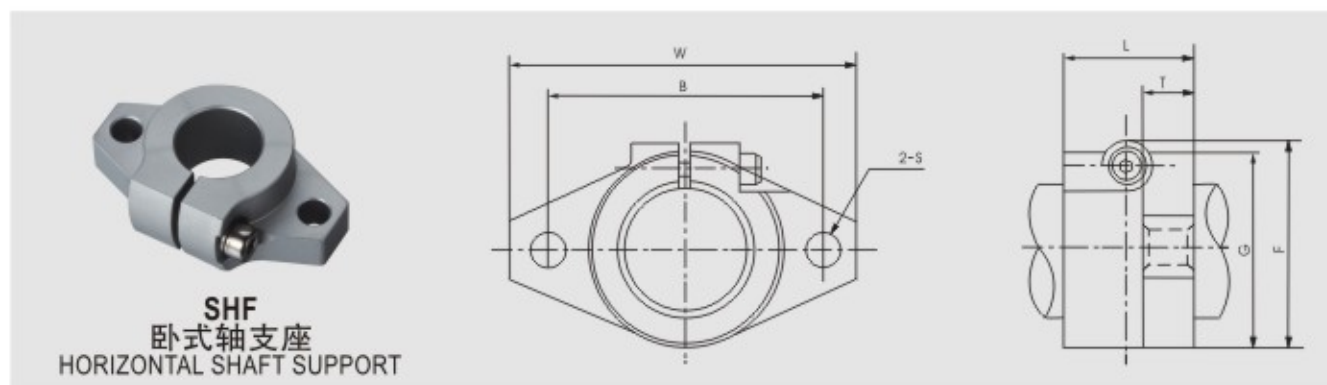
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS									锁紧螺栓 DESIGNATION OF CLAMPING BOLT	安装螺栓 DESIGNATION OF MOUNTING BOLT	重量 WEIGHT (Kg)
		H	E	W	L	F	G	P	B	S			
SK3	3	20	21	42	14	33	6	18	32	5.5	M4	M5	0.024
SK4	4	20	21	42	14	33	6	18	32	5.5	M4	M5	0.024
SK5	5	20	21	42	14	33	6	18	32	5.5	M4	M5	0.024
SK6	6	20	21	42	14	33	6	18	32	5.5	M4	M5	0.024
SK8	8	20	21	42	14	33	6	18	32	5.5	M4	M5	0.024
SK10	10	20	21	42	14	33	6	18	32	5.5	M4	M5	0.024
SK12	12	23	21	42	14	37.5	6	20	32	5.5	M4	M5	0.030
SK13	13	23	21	42	14	37.5	6	20	32	5.5	M4	M5	0.030
SK16	16	27	24	48	16	44	8	25	38	5.5	M4	M5	0.040
SK20	20	31	30	60	20	51	10	30	45	6.6	M5	M6	0.070
SK25	25	35	35	70	24	60	12	38	56	6.6	M6	M6	0.130
SK30	30	42	42	84	28	70	12	44	64	9	M6	M8	0.180
SK35	35	50	49	98	32	82	15	50	74	11	M8	M10	0.270
SK40	40	60	57	114	36	96	15	60	90	11	M8	M10	0.420
SK50	50	70	63	126	40	120	18	74	100	14	M12	M12	0.750


PA立式轴支座
 PA Stand-up shaft support


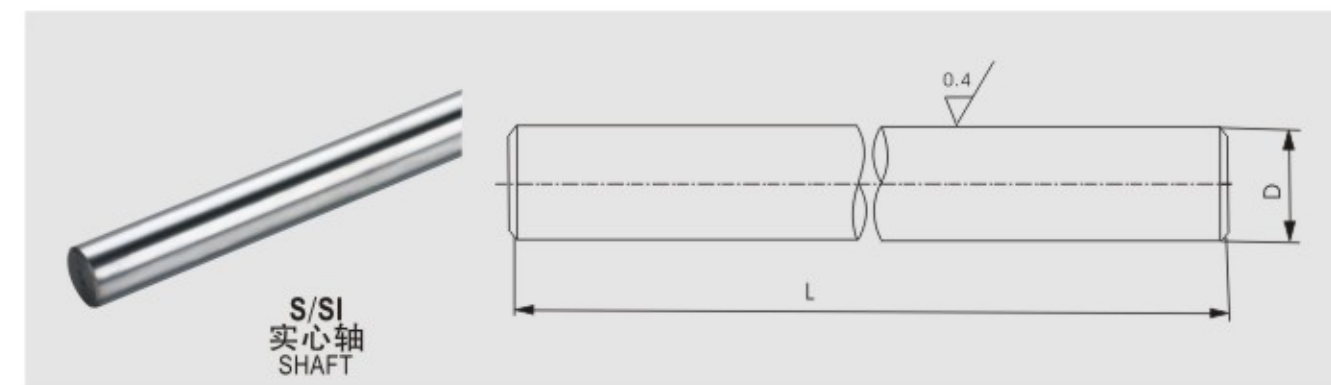
型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS									重量 WEIGHT (Kg)
		H	E	W	L	F	G	P	B	S	
PA12	12	20	21	42	12	35	5.5	20	32	4.3	0.021
PA16	16	25	25	50	16	42	6.5	26	40	4.3	0.040
PA20	20	30	30	60	20	50	8	32	45	4.3	0.075
PA25	25	35	37	74	25	58	9	38	60	5.3	0.130
PA30	30	40	42	84	28	68	10	45	68	6.4	0.195

SKW立式轴支座
 SK Stand-up shaft support
 英制系列
 Inch Series


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS									重量 WEIGHT (Kg)
		H	E	W	L	F	G	P	B	S	
SKW04	0.25" 6.35	0.6875" 17.463	0.75" 19.05	1.50" 38.10	0.50" 12.70	1.063" 27	0.25" 6.35	0.50" 12.70	1.125" 28.575	0.156" 4.0	0.015
SKW06	0.375" 9.525	0.75" 19.05	0.8125" 20.637	1.625" 41.28	0.563" 14.3	1.187" 30.16	0.25" 6.35	0.688" 17.46	1.25" 31.75	0.156" 4.0	0.021
SKW08	0.50" 12.70	1.0" 25.40	1.0" 25.40	2.00" 50.80	0.63" 16	1.63" 41.4	0.25" 6.35	0.88" 22.35	1.50" 38.10	0.188" 4.8	0.035
SKW10	0.625" 15.875	1.0" 25.40	1.25" 31.75	2.5" 63.5	0.688" 17.46	1.78" 44.45	0.31" 7.88	1.0" 25.40	1.875" 47.625	0.218" 5.6	0.052
SKW12	0.75" 19.05	1.25" 31.75	1.25" 31.75	2.5" 63.5	0.75" 19.05	2.13" 54.1	0.31" 7.88	1.25" 31.75	2.00" 50.80	0.218" 5.6	0.082
SKW16	1.0" 25.40	1.50" 38.10	1.5315" 38.9	3.063" 77.8	1.0" 25.40	2.56" 65	0.38" 9.65	1.50" 38.10	2.5" 63.5	0.281" 7.1	0.145
SKW20	1.25" 31.75	1.75" 44.45	1.875" 47.625	3.75" 95.25	1.13" 28.7	3" 76.2	0.44" 11.18	2.00" 50.80	3" 76.2	0.346" 8.8	0.254
SKW24	1.50" 38.10	2.00" 50.80	2.1875" 55.563	4.375" 111.125	1.25" 31.75	3.5" 88.9	0.50" 12.70	2.25" 57.15	3.5" 88.9	0.346" 8.8	0.362
SKW32	2.00" 50.80	2.5" 63.5	2.75" 69.85	5.5" 139.7	1.50" 38.10	4.5" 114.3	0.63" 16	3" 76.2	4.5" 114.3	0.406" 10.5	0.716


 SHF卧式轴支座
 SHF Horizontal shaft support


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS							锁紧螺栓 DESIGNATION OF CLAMPING BOLT	安装螺栓 DESIGNATION OF MOUNTING BOLT	重量 WEIGHT (Kg)
		W	L	T	F	G	B	S			
SHF3	3	43	10	5	24	20	32	5.5	M4	M5	0.013
SHF4	4	43	10	5	24	20	32	5.5	M4	M5	0.013
SHF5	5	43	10	5	24	20	32	5.5	M4	M5	0.013
SHF6	6	43	10	5	24	20	32	5.5	M4	M5	0.013
SHF8	8	43	10	5	24	20	32	5.5	M4	M5	0.013
SHF10	10	43	10	5	24	20	32	5.5	M4	M5	0.013
SHF12	12	47	13	7	28	25	36	5.5	M4	M5	0.020
SHF13	13	47	13	7	28	25	36	5.5	M4	M5	0.020
SHF16	16	50	16	8	31	28	40	5.5	M4	M5	0.027
SHF20	20	60	20	8	37	34	48	7	M5	M6	0.040
SHF25	25	70	25	10	42	40	56	7	M5	M6	0.060
SHF30	30	80	30	12	50	46	64	9	M6	M8	0.110
SHF35	35	92	35	14	58	50	72	12	M8	M10	0.380
SHF40	40	102	40	16	67	56	80	12	M10	M10	0.510
SHF50	50	122	50	19	83	70	96	14	M12	M12	0.890

 S/SI实心轴
 S/SI Shaft


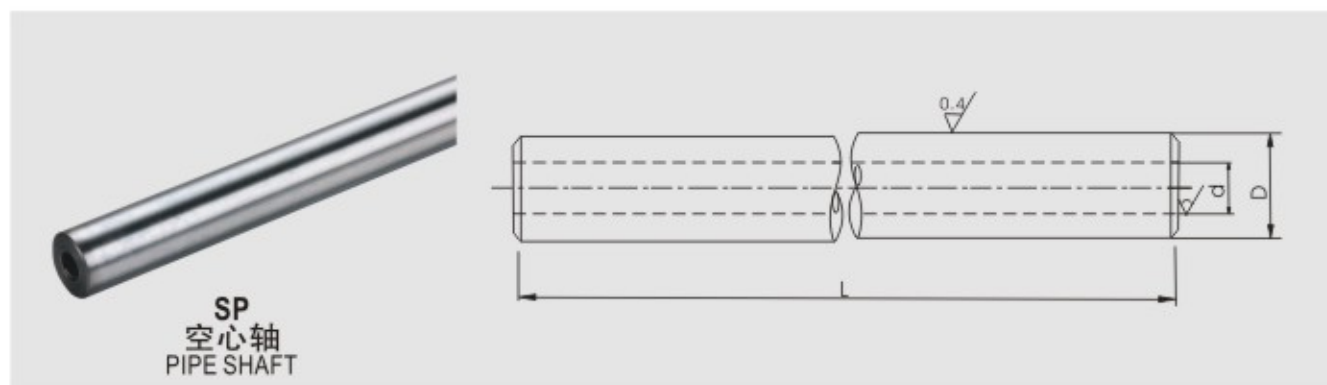
公制轴 (ASIA/EUROPE SHAFT)

型号 MODEL NO.	外径 OUTER DIAMETER D	精度 DIMETER TOLERANCE		淬硬层深度 DEPTH OF EFFECTIVE HARDEND LAYER	每米长重量 WEIGHT (Kg/m)
		g6	h6		
S6	6	-0.004 -0.012	0 -0.008	0.4~1.0	0.22
S8	8	-0.005 -0.014	0 -0.009		0.40
S10	10	-0.005 -0.014	0 -0.009	0.6~1.5	0.62
S12	12				0.89
S13	13	-0.006 -0.017	0 -0.011	0.8~2.0	1.04
S16	16				1.58
S20	20			0.8~2.0	2.47
S25	25	-0.007 -0.020	0 -0.013		3.85
S30	30			0.8~3.0	5.55
S35	35				7.55
S40	40	-0.009 -0.025	0 -0.016	0.8~3.0	9.87
S50	50				15.4

英制轴 (INCH SHAFT)

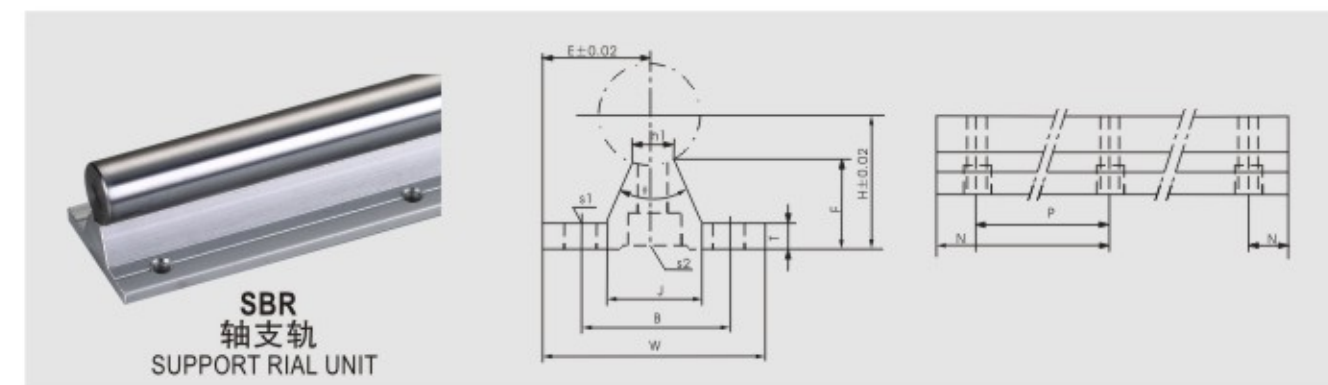
型号 MODEL NO.	外径 OUTER DIAMETER	精度 DIMETER TOLERANCE		淬硬层深度 DEPTH OF EFFECTIVE HARDEND LAYER	每米长重量 WEIGHT (Kg/m)
		g6	L级		
SI-04	6.35	-0.004 -0.012		0.4~1.0	0.25
SI-06	9.525	-0.005 -0.014			0.6~1.5
SI-08	12.7		-0.013	0.8~2.0	1.0
SI-10	15.875	-0.006 -0.017	-0.026		1.55
SI-12	19.05			0.8~2.0	2.24
SI-16	25.4	-0.007 -0.020			4.0
SI-20	31.75			0.8~3.0	6.21
SI-24	38.1	-0.009 -0.025	-0.015 -0.028		8.95
SI-32	50.8		-0.015 -0.033	15.9	

材质: 45优质碳素钢(S45C), 硬度HRC58以上
 GCr15轴承钢(SUJ2), 硬度HRC60以上
 9Cr18不锈钢(SUS440), 硬度HRC52以上
 表面可镀硬铬
 Material: S45C, rigidity: more than HRC58
 GCr15(SUJ2), rigidity: more than HRC60
 9Cr18(SUS440), rigidity: more than HRC52
 The surface have hard chromic plating and
 no hard chromic plating


 SP空心轴
 SP Pipe shaft


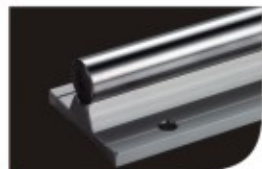
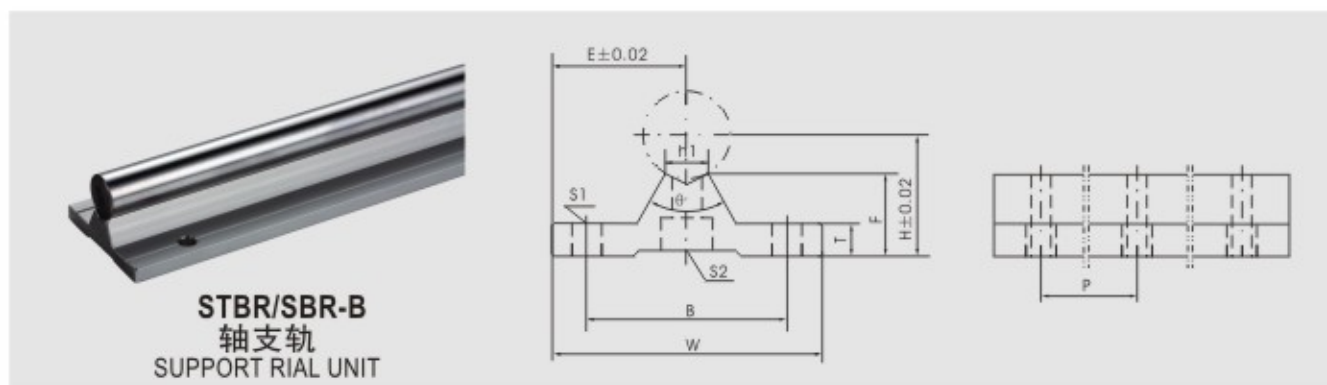
型号 MODEL NO.	内径 INSCRIBED CIRCLE DIAMETER	外径 OUTER DIAMETER	精度 DIMETER TOLERANCE		淬硬层深度 DEPTH OF EFFECTIVE HARDEND LAYER	每米长重量 WEIGHT(Kg/m)
			g6	h6		
SP16	7.5	16	-0.006 -0.017	0 -0.011	0.6~1.2	1.23
SP20	14	20	-0.007 -0.020	0 -0.013		1.26
SP25	19	25				1.68
SP30	16	30	-0.009 -0.025	0 -0.016	0.8~2.0	3.97
SP35	19	35				5.44
SP40	27	40				5.37
SP50	36	50				7.42

材质: GCr15轴承钢(SUJ2), 硬度HRC60以上
 Material: GCr15(SUJ2), rigidity: more than HRC60
 内径有多种规格, 订购前需确认
 (ID have several size. Please affirm first)

 SBR轴支轨
 SBR Support rail unit


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS								安装尺寸 MOUNTING DIMENSION					重量 WEIGHT (Kg)
		H	E	W	F	T	J	h1	θ	B	N	P	S1	S2	
SBR10	10	18	16	32	13.5	4	12.4	4.7	80°	22	50	100	4.5	M4	1.2
SBR12	12	20.46	17	34	15	4.5	15	6	80°	25	50	100	4.5	M4	1.8
SBR13	13	21	17	34	15	4.5	15	6	80°	25	50	100	4.5	M4	2.1
SBR16	16	25	20	40	17.8	5	18.5	8	80°	30	50	150	5.5	M5	2.4
SBR20	20	27	22.5	45	17.7	5	19	8	50°	30	50	150	5.5	M6	3.3
SBR25	25	33	27.5	55	21	6	21.5	8	50°	35	100	200	6.5	M6	5.31
SBR30	30	37	30	60	22.8	7	26.5	10.3	50°	40		200	6.5	M8	7.83
SBR35	35	43	32.5	65	26.5	8	28	13	50°	45		200	9	M8	9.88
SBR40	40	48	37.5	75	29.4	9	38	15.5	50°	55		300	9	M8	13.15
SBR50	50	62	47.5	95	38.8	11	45	20	50°	70		300	11	M10	20.4

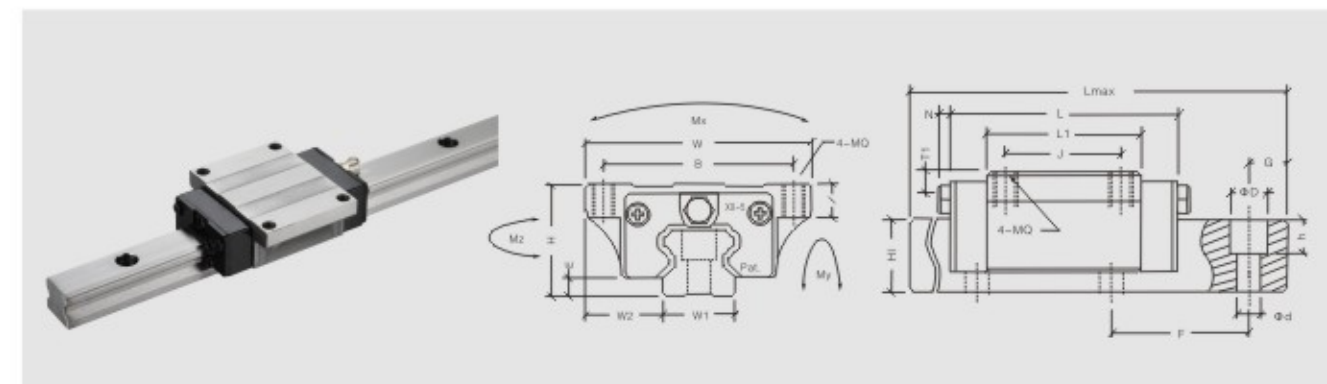
注: 1、轴支轨长度任意。
 2、安装孔中心距可以按25mm为单位订制。
 Annotate: 1. length can random
 2. Mounting hole center distance can make by buyer in denomination of 25mm


STBR/SBR-B轴支轨
 STBR/SBR-B Support rail unit


型号 MODEL NO.	轴径 SHAFT DIAMETER	主要尺寸 MAIN DIMENSIONS							安装尺寸 MOUNTING DIMENSION				重量 WEIGHT (Kg)
		H	E	W	F	T	h1	θ	B	P	S1	S2	
STBR16	16	22.14	25	50	15	6	8	60°	37	150	5.5	M5	2.5
STBR20	20	29.01	27.5	55	19.7	8	8	60°	40	150	5.5	M6	3.5
STBR25	25	32	32.5	65	20	10	8	60°	45	200	6.5	M6	5.5
STBR30	30	36.52	37.5	75	22.3	12	10.3	50°	55	200	6.5	M8	8
SBR16B	16	25	20	40	17.4	5	7.4	50°	30	150	5.5	M5	2.4
SBR20B	20	27	22.5	45	17.4	5	8	50°	30	150	5.5	M6	3.3
SBR25B	25	33	27.5	55	21	6	10	50°	35	200	6.5	M6	5.31
SBR30B	30	37	30	60	22.5	7	8	60°	40	200	6.5	M8	7.83

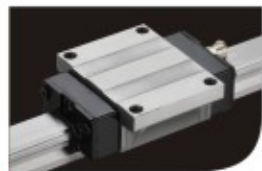
注：1、轴支轨长度任意。
 2、安装孔中心距可以按25mm为单位订制。

Annotate: 1. length can random
 2. Mounting hole center distance can make by buyer in denomination of 25mm

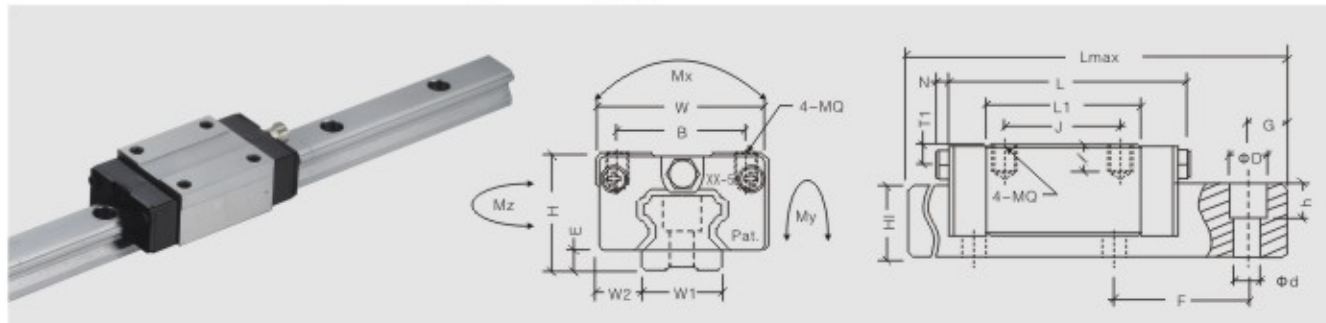
高组装、法兰型&重负荷加长型
 International standard, with flange & long type


型号 MODEL NO.	组合尺寸(mm)				滑座尺寸(mm)							滑轨尺寸(mm)			
	H	W	W2	E	L	BXJ	MQXI	L1	油孔	T1	N	W1	H1	F	dxDxh
HLH15A	24	47	16	4.6	66	38x30	M5x8	40	Φ3	4.3	5	15	14	60	4.5x7.5x5.3
HLH20A	30	63	21.5	5	77.8	53x40	M6x9	48.8	M6x1	5	6.5	20	18	60	6x9.5x8.5
HLH20AL					92.4			63.4							
HLH25A	36	70	23.5	7	88	57x45	M8x12	57	M6x1	5	6.5	23	22	60	7x11x9
HLH25AL					110.1			79.1							
HLH30A	42	90	31	9	109	72x52	M10x12	72	M6x1	7	6.5	28	26	80	9x14x12
HLH30AL					131.3			94.3							
HLH35A	48	100	33	9.5	119	82x62	M10x13	80	M6x1	8	6.5	34	29	80	9x14x12
HLH35AL					144.8			105.8							
HLH45A	60	120	37.5	14	148.2	100x80	M12x15	105	M8x1	10	13	45	38	105	14x20x17
HLH45AL					173			129.8							
HLH55A	70	140	43.5	15	170	116x95	M14x20	121	M8x1	11	13	53	44	120	16x23x20
HLH55AL					205.1			156.1							

型号 MODEL NO.	参考资料(mm)		基本负荷(kgf)			容许静力矩(kgf·m)			重量	
	Lmax	G	动额定负荷(C)	静额定负荷(Co)	Mx	My	Mz	滑块(kg)	滑轨(kg/M)	
HLH15A	4000	20	850	1650	10	8	8	0.19	1.4	
HLH20A	4000	20	1450	2560	22	18	18	0.4	2.6	
HLH20AL			1900	3330	28.6	23.4	23.4	0.52		
HLH25A	4000	20	2140	4000	36	32	31	0.57	3.6	
HLH25AL			2996	5600	50.4	44.8	43.4	0.72		
HLH30A	4000	20	2980	5490	60	50	49	1.1	5.2	
HLH30AL			3900	7190	78.5	65	65	1.4		
HLH35A	4000	20	3960	7010	96	75	73	1.6	7.2	
HLH35AL			5230	9270	125	95	95	2		
HLH45A	4000	22.5	6740	12100	216	170	168	2.7	12.3	
HLH45AL			8330	14950	267	210	210	3.6		
HLH55A	4000	30	9940	17100	367	293	288	5	16.9	
HLH55AL			12820	22060	473	380	375	6.4		



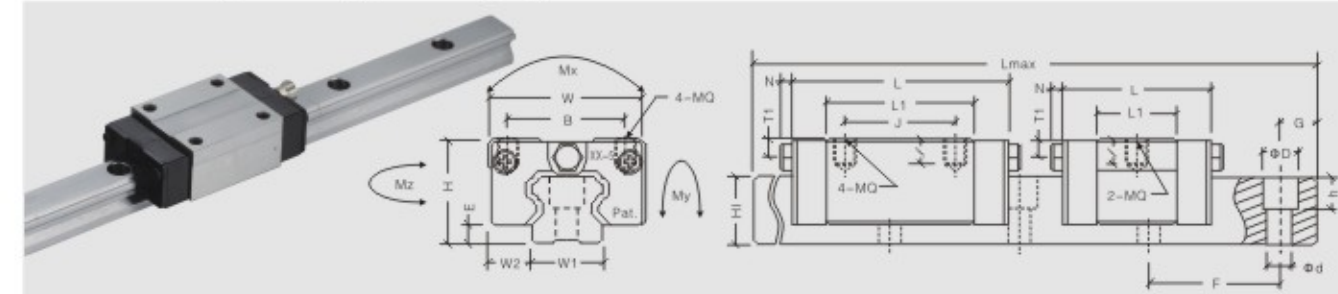
高组装、无法兰型&重负荷加长型
 International standard, with flange & long type



型号 MODEL NO.	组合尺寸(mm)				滑座尺寸(mm)							滑轨尺寸(mm)			
	H	W	W2	E	L	BXJ	MQXI	L1	油孔	T1	N	W1	H1	F	dxDxh
HLH15B	28	34	9.5	4.6	66	26x26	M4x6.4	40	Φ3	8.3	5	15	14	60	4.5x7.5x5.3
HLH20B	30	44	12	5	77.8	32x36	M5x8	48.8	M6x1	7	6.5	20	18	60	6x9.5x8.5
HLH20BL					92.4	32x50		63.4							
HLH25B	40	48	12.5	7	88	35x35	M6x9.6	57	M6x1	11.8	6.5	23	22	60	7x11x9
HLH25BL					110.1	35x50		79.1							
HLH30B	45	60	16	9	100	40x40	M8x12.8	72	M6x1	10	6.5	28	26	80	9x14x12
HLH30BL					131.3	40x60		94.3							
HLH35B	55	70	18	9.5	109	50x50	M8x12.8	80	M6x1	15	6.5	34	29	80	9x14x12
HLH35BL					144.8	50x72		105.8							
HLH45B	70	86	20.5	14	148.2	60x60	M10x16	105	M8x1	18	13	45	38	105	14x20x17
HLH45BL					173	60x80		129.8							
HLH55B	80	100	23.5	15	170	75x75	M12x19	121	M8x1	20	13	53	44	120	16x23x20
HLH55BL					205.1	75x95		156.1							

型号 MODEL NO.	参考资料(mm)		基本负荷(kgf)		容许静力矩(kgf·m)			重量	
	Lmax	G	动额定负荷(C)	静额定负荷(Co)	Mx	My	Mz	滑块(kg)	滑轨(kg/M)
HLH15B	4000	20	850	1650	10	8	8	0.21	1.4
HLH20B			1450	2560	22	18	18	0.31	
HLH20BL	4000	20	1900	3330	28.6	23.4	23.4	0.47	2.6
HLH25B			2140	4000	36	32	31	0.45	
HLH25BL	4000	20	2996	5600	50.4	44.8	43.4	0.56	3.6
HLH30B			2980	5490	60	50	49	0.91	
HLH30BL	4000	20	3900	7190	78.5	65	65	1.2	5.2
HLH35B			3960	7010	96	75	73	1.5	
HLH35BL	4000	20	5230	9270	125	95	95	1.9	7.2
HLH45B			6740	12100	216	170	168	2.3	
HLH45BL	4000	22.5	8330	14950	267	210	210	2.8	12.3
HLH55B			9940	17100	367	293	288	3.9	
HLH55BL	4000	30	12820	22060	473	380	375	5	16.9

低组装、缩小型&重负荷加长型
 Low assembly, small type & long type

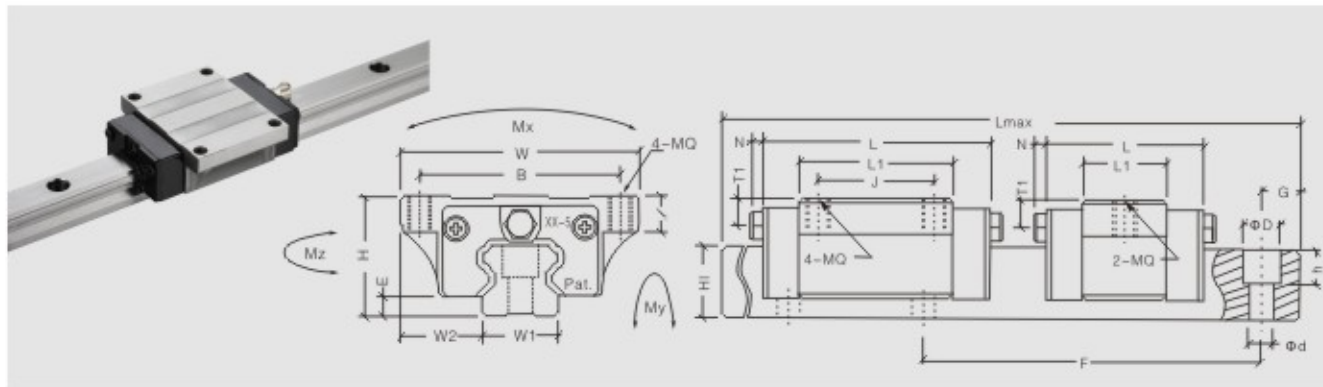


型号 MODEL NO.	组合尺寸(mm)				滑座尺寸(mm)							滑轨尺寸(mm)			
	H	W	W2	E	L	BXJ	MQXI	L1	油孔	T1	N	W1	H1	F	dxDxh
HLS15B	24	34	9.5	4.6	66	26x26	M4x5.6	40	Φ3	4.3	5	15	14	60	4.5x7.5x5.3
HLS15BS					47.6	26x-		21.6							
HLS20B	28	42	11	5	77.8	32x32	M5x7	48.8	M6x1	5	6.5	20	18	60	6x9.5x8.5
HLS20BS					58	32x-		28							
HLS25B	33	48	12.5	7	88	35x35	M6x8.4	57	M6x1	4.3	6.5	23	22	60	7x11x9
HLS25BS					62.5	35x-		31.5							
HLS25BL					110.1	35x50		79.1							
HLS30B	42	60	16	9	109	40x40	M8x11.2	72	M6x1	7	6.5	28	26	80	9x14x12
HLS30BS					75.6	40x-		38.6							
HLS30BL					131.3	40x60		94.3							
HLS35B	48	70	18	9.5	119	50x50	M8x11.2	80	M6x1	8	6.5	34	29	80	9x14x12
HLS35BS					84.7	50x-		45.7							
HLS35BL					144.8	50x72		105.8							
HLS45B	60	86	20.5	14	148.2	60x60	M10x14	105	M8x1	8.5	13	45	38	105	14x20x17
HLS45BL					173	60x80		129.8							
HLS55B	68	100	23.5	15	170	75x75	M12x15	121	M8x1	8	13	53	44	120	16x23x20
HLS55BL					205.1	75x95		156.1							

型号 MODEL NO.	参考资料(mm)		基本负荷(kgf)		容许静力矩(kgf·m)			重量	
	Lmax	G	动额定负荷(C)	静额定负荷(Co)	Mx	My	Mz	滑块(kg)	滑轨(kg/M)
HLS15B	4000	20	850	1650	10	8	8	0.17	1.4
HLS15BS			510	950	6	4.8	4.8	0.1	
HLS20B	4000	20	1450	2560	22	18	18	0.26	2.6
HLS20BS			830	1470	12.6	10.3	10.3	0.17	
HLS25B	4000	20	2140	4000	36	32	31	0.38	3.6
HLS25BS			1190	2230	20	17.5	17.2	0.21	
HLS25BL			2996	5600	50.4	44.8	43.4	0.53	
HLS30B	4000	20	2980	5490	60	50	49	0.81	5.2
HLS30BS			1595	2940	32	27	27	0.48	
HLS30BL			3900	7190	78.5	65	65	1.06	
HLS35B	4000	20	3960	7010	96	75	73	1.2	7.2
HLS35BS			2260	4000	54.5	42.5	41.5	0.8	
HLS35BL			5230	9270	125	95	95	1.6	
HLS45B	4000	22.5	6740	12100	216	170	168	2.1	12.3
HLS45BL			8330	14950	267	210	210	2.6	
HLS55B	4000	30	9940	17100	367	293	288	3.6	16.9
HLS55BL			12820	22060	473	380	375	4.6	



低组装、法兰型&缩小型
 Low assembly, with flange & small type

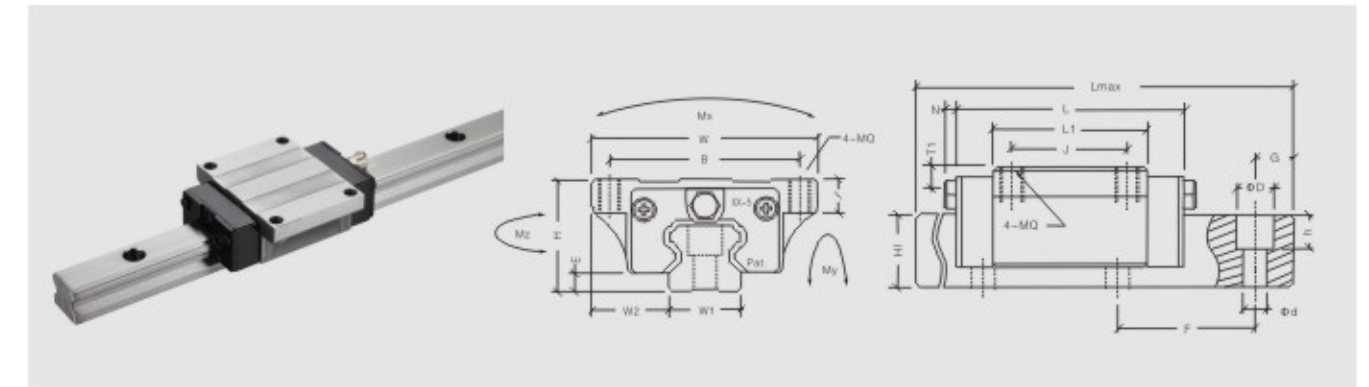


型号 MODEL NO.	组合尺寸(mm)				滑座尺寸(mm)						滑轨尺寸(mm)				
	H	W	W2	E	L	BXJ	MQXI	L1	油孔	T1	N	W1	H1	F	dxDxh
HLS20AS	28	59	19.5	5	57	49	M6x7	28	M6x1	5	6.5	20	18	60	6x9.5x8.5
HLS25A	33	73	25	7	88	60x35	M8x9	57	M6x1	4.8	6.5	23	22	60	7x11x9
HLS25AS					62.5	60		31.5							

标记示例:
 HL H 25 A L
 无: 标准型, S: 缩小型, L: 加长型
 A: A系列法兰型, B: B系列方块形
 C: C系列法兰型, D: D系列方块形
 规格代号
 H: 高组装, S: 低组装
 基本代号

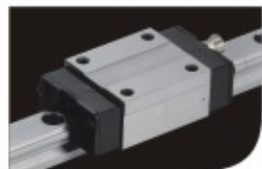
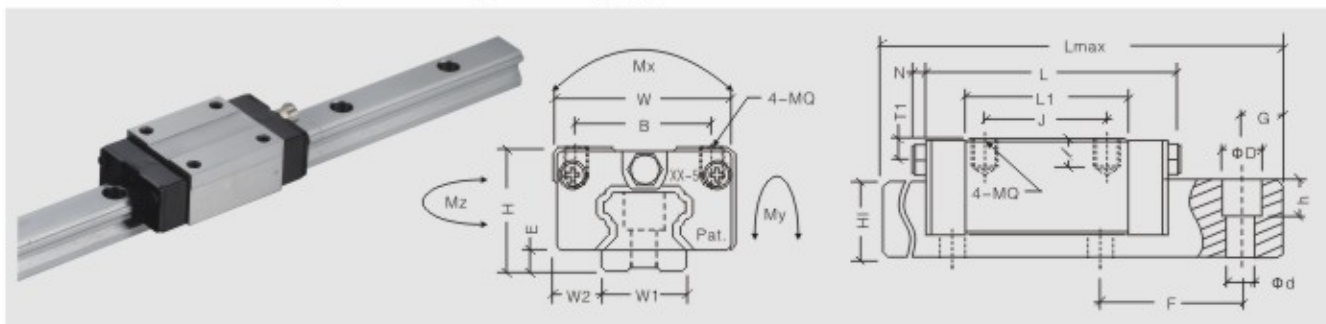
A系列和C系列安装尺寸一致, 内部结构不同
 B系列和D系列安装尺寸一致, 内部结构不同

高组装、法兰型 & 重负荷加长型
 International standard, with flange & long type



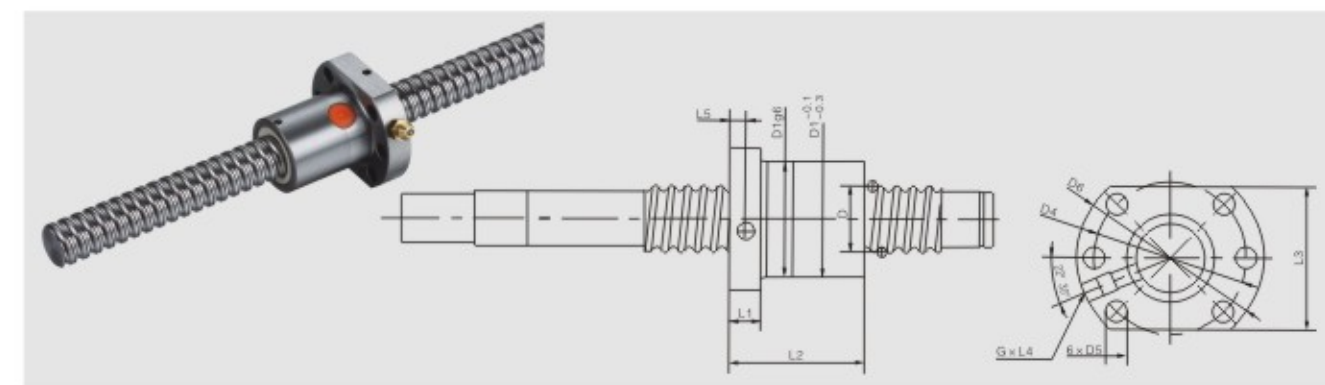
型号 MODEL NO.	组合尺寸(mm)				滑座尺寸(mm)						滑轨尺寸(mm)				
	H	W	W2	E	L	BXJ	MQXI	L1	油孔	T1	N	W1	H1	F	dxDxh
HLH15C	24	47	16	4.3	61.4	38x30	M5x8.9	39.4	φ3	3.95	5.3	15	15	60	4.5x7.5x5.3
HLH20C	30	63	21.5	4.6	77.5	53x40	M6x10	50.5	M6x1	6	12	20	17.5	60	6x9.5x8.5
HLH20CL					92.2			65.2							
HLH25C	36	70	23.5	5.5	84	57x45	M8x14	58	M6x1	6	12	23	22	60	7x11x9
HLH25CL					104.6			78.6							
HLH30C	42	90	31	6	97.4	72x52	M10x16	70	M6x1	6.5	12	28	26	80	9x14x12
HLH30CL					120.4			93							
HLH35C	48	100	33	7.5	112.4	82x62	M10x18	80	M6x1	9	12	34	29	80	9x14x12
HLH35CL					138.2			105.8							
HLH45C	60	120	37.5	9.5	139.4	100x80	M12x22	97	M6x1	8.5	12.9	45	38	105	14x20x17
HLH45CL					171.2			128.8							
HLH55C	70	140	43.5	13	166.7	116x95	M14x26.5	117.7	M6x1	12	12.9	53	44	120	16x23x20
HLH55CL					204.8			155.8							

型号 MODEL NO.	参考资料(mm)		基本负荷(kgf)		容许静力矩(kgf·m)			重量	
	Lmax	G	动额定负荷(C)	静额定负荷(Co)	Mx	My	Mz	滑块(kg)	滑轨(kg/M)
HLH15C	4000	20	1138	2531	17	15	15	0.17	1.45
HLH20C	4000	20	1775	3784	38	27	27	0.40	2.21
HLH20CL			2118	4884	48	47	47	0.52	
HLH25C	4000	20	2648	5916	64	51	51	0.59	3.21
HLH25CL			3275	7600	87	88	88	0.80	
HLH30C	4000	20	3874	8306	106	85	85	1.09	4.47
HLH30CL			4727	11013	140	147	147	1.44	
HLH35C	4000	20	4952	10287	173	120	120	1.56	6.3
HLH35CL			6021	13631	229	208	208	2.06	
HLH45C	4000	22.5	7757	15593	301	235	235	2.79	10.41
HLH45CL			9454	20712	400	407	407	3.69	
HLH55C	4000	30	11444	22781	566	406	406	4.52	15.08
HLH55CL			13935	30126	749	701	701	5.96	


 高组装、无法兰型 & 重负荷加长型
 International standard, with flange & long type


型号 MODEL NO.	组合尺寸(mm)				滑座尺寸(mm)						滑轨尺寸(mm)				
	H	W	W2	E	L	BXJ	MQXI	L1	油孔	T1	N	W1	H1	F	dxDxh
HLH15D	28	34	9.5	4.3x4	61.4	26x26	M4x5	39.4	Φ3	7.95	5.3	15	15	60	4.5x7.5x5.3
HLH20D	30	44	12	4.6	77.5	32x36	M5x6	50.5	M6x1	6	12	20	17.5	60	6x9.5x8.5
HLH20DL					92.2	32x50		65.2							
HLH25D	40	48	12.5	5.5	84	35x35	M6x8	58	M6x1	10	12	23	22	60	7x11x9
HLH25DL					104.6	35x50		78.6							
HLH30D	45	60	16	6	97.4	40x40	M8x10	70	M6x1	9.5	12	28	26	80	9x14x12
HLH30DL					120.4	40x60		93							
HLH35D	55	70	18	7.5	112.4	50x50	M8x12	80	M6x1	16	12	34	29	80	9x14x12
HLH35DL					138.2	50x72		105.8							
HLH45D	70	86	20.5	9.5	139.4	60x60	M10x17	97	M6x1	18.5	12.9	45	38	105	14x20x17
HLH45DL					171.2	60x80		128.8							
HLH55D	80	100	23.5	13	166.7	75x75	M12x18	117.7	M6x1	22	12.9	53	44	120	16x23x20
HLH55DL					204.8	75x95		155.8							

型号 MODEL NO.	参考资料(mm)		基本负荷(kgf)		容许静力矩(kgf*m)			重量	
	Lmax	G	动额定负荷(C)	静额定负荷(Co)	Mx	My	Mz	滑块(kg)	滑轨(kg/M)
HLH15D	4000	20	1138	2531	17	15	15	0.18	1.45
HLH20D	4000	20	1775	3784	38	27	27	0.30	2.21
HLH20DL			2118	4884	48	47	47	0.39	
HLH25D	4000	20	2648	5916	64	51	51	0.51	3.21
HLH25DL			3275	7600	87	88	88	0.69	
HLH30D	4000	20	3874	8306	106	85	85	0.88	4.47
HLH30DL			4727	11013	140	147	147	1.16	
HLH35D	4000	20	4952	10287	173	120	120	1.45	6.3
HLH35DL			6021	13631	229	208	208	1.92	
HLH45D	4000	22.5	7757	15593	301	235	235	2.73	10.41
HLH45DL			9454	20712	400	407	407	3.61	
HLH55D	4000	30	11444	22781	566	406	406	4.17	15.08
HLH55DL			13935	30126	749	701	701	5.49	

 滚珠丝杠、法兰螺母
 Ball screws flange nuts


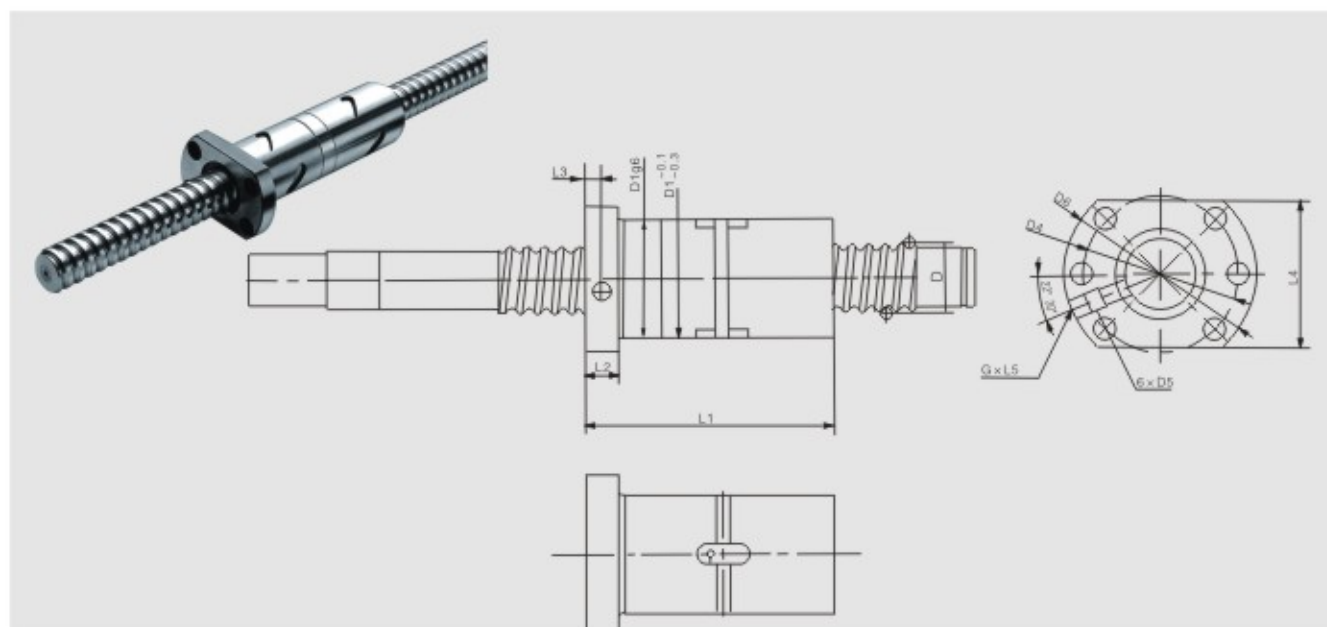
型号 MODEL NO.	公称直径 D	导程	D1	D4	D5	D6	L1	L2	L3	L4	L5	油孔 G	钢球直径 (mm)	循环 圈数	额定载荷(kgf)	
															动载荷C	静载荷Co
SF1605-3	16	5	28	38	5.5	48	10	42	40	10	5	M6	φ3.175	3	930	1310
SF1605-4	16	5	28	38	5.5	48	10	50	40	10	5	M6	φ3.175	4	780	1790
SF2005-3	20	5	36	47	6.6	58	10	42	44	10	5	M6	φ3.175	3	1050	1660
SF2005-4	20	5	36	47	6.6	58	10	51	44	10	5	M6	φ3.175	4	1130	2380
SF2505-3	25	5	40	51	6.6	62	10	42	48	10	5	M6	φ3.175	3	1230	2250
SF2505-4	25	5	40	51	6.6	62	10	51	48	10	5	M6	φ3.175	4	1280	3110
SF3205-3	32	5	50	65	9	80	12	42	62	10	6	M8	φ3.175	3	1390	3950
SF3205-4	32	5	50	65	9	80	12	52	62	10	6	M8	φ3.175	4	1450	4150
SF3210-4	32	10	50	65	9	80	12	90	62	10	6	M8	φ6.35	4	3390	7170

滚珠丝杠精度C7级, 任意300螺距误差小于0.05, 轴向间隙0~0.05。
 Ball screw precision is C7, Variation per 300mm is less than 0.05, axial play clearance is 0~0.05.

标记示例:
 SFM 16 05 - 3
 ———— 循环圈数
 ———— 导程
 ———— 公称直径
 F: 法兰螺母, M: 圆螺母, FM: 法兰加长螺母

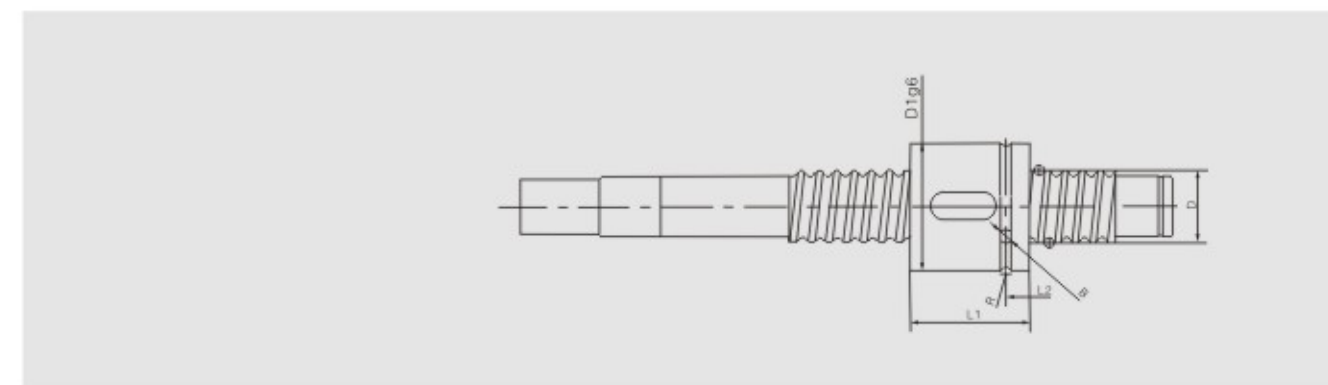


滚珠丝杠、法兰加长螺母
 Long type of ball screws flange nuts



型号 MODEL NO.	公称直径 D	导程	D1	D4	D5	D6	L1	L2	L3	L4	L5	油孔 G	钢球直径 (mm)	循环 圈数
SFM1605-3	16	5	28	38	5.5	48	82	10	5	40	10	M6	φ3.175	3
SFM2005-3	20	5	36	47	6.6	58	82	10	5	44	10	M6	φ3.175	3
SFM2505-3	25	5	40	51	6.6	62	82	10	5	48	10	M6	φ3.175	3
SFM1605-4	16	5	28	38	5.5	48	100	10	5	40	10	M6	φ3.175	4
SFM2005-4	20	5	36	47	6.6	58	101	10	5	44	10	M6	φ3.175	4
SFM2505-4	25	5	40	51	6.6	62	101	10	5	48	10	M6	φ3.175	4

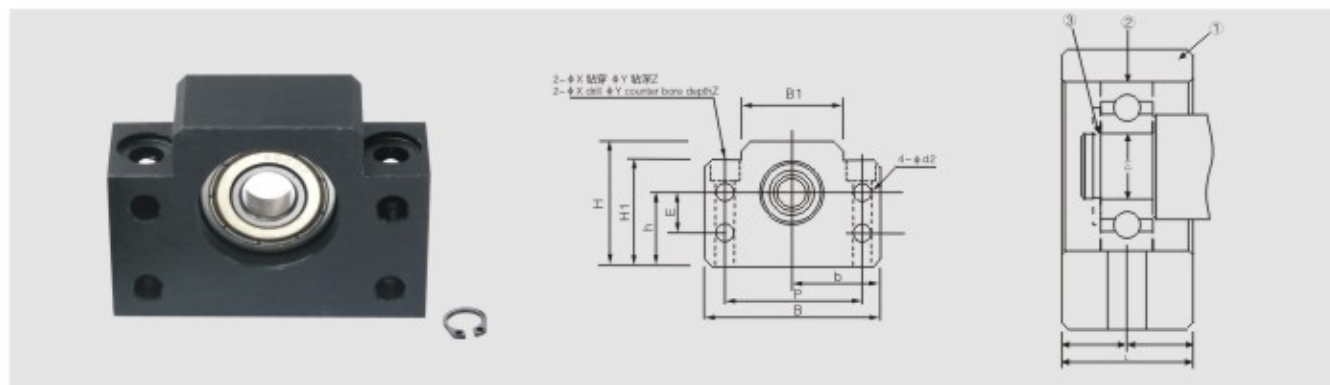
滚珠丝杠、圆螺母
 Ball screws nuts



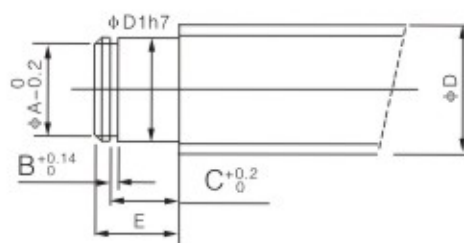
型号 MODEL NO.	公称直径 D	导程	D1	L1	L2	R	B	钢球直径 (mm)	循环圈数
SM1605-3	16	5	28	34	7	1.5	2.5	φ3.175	3
SM2005-3	20	5	36	34	7	1.5	2.5	φ3.175	3
SM2505-3	25	5	40	34	7	1.5	2.5	φ3.175	3
SM1605-4	16	5	28	42	7	1.5	2.5	φ3.175	4
SM2005-4	20	5	36	42	7	1.5	2.5	φ3.175	4
SM2505-4	25	5	40	42	7	1.5	2.5	φ3.175	4
SM3205-3	32	5	50	34	7	1.5	2.5	φ3.175	3
SM4005-3	40	5	63	34	7	1.5	2.5	φ3.175	3
SM3205-4	32	5	50	45	7	1.5	2.5	φ3.175	4
SM4005-4	40	5	63	45	7	1.5	2.5	φ3.175	4


 滚珠丝杠支撑座支持端
 Ball screws supports

编号/Park No.	部品名称/Park name	数量/Qty
1	轴承座本体/Housing	1
2	轴承/Bearing	1
3	C型扣环/Holding lid	1



型号 MODEL NO.	轴径 SHAFT DIAMETER d1	L	B	H	b	h	B1	H1	E	P	d2	X	Y	Z	使用轴承 BEARING	使用C型扣环 SNAPRING
					±0.02	±0.02										
BF-12	10	20	60	43	30	25	35	32.5	18	46	5.5	6.6	11	1.5	6000ZZ	S10
BF-15	15	20	70	48	35	28	40	38	18	54	5.5	6.6	11	6.5	6002ZZ	S15
BF-17	17	23	86	64	43	39	50	55	28	68	6.6	9	14	8.5	6203ZZ	S17
BF-20	20	26	88	60	44	34	52	50	22	70	6.6	9	14	8.5	6004ZZ	S20

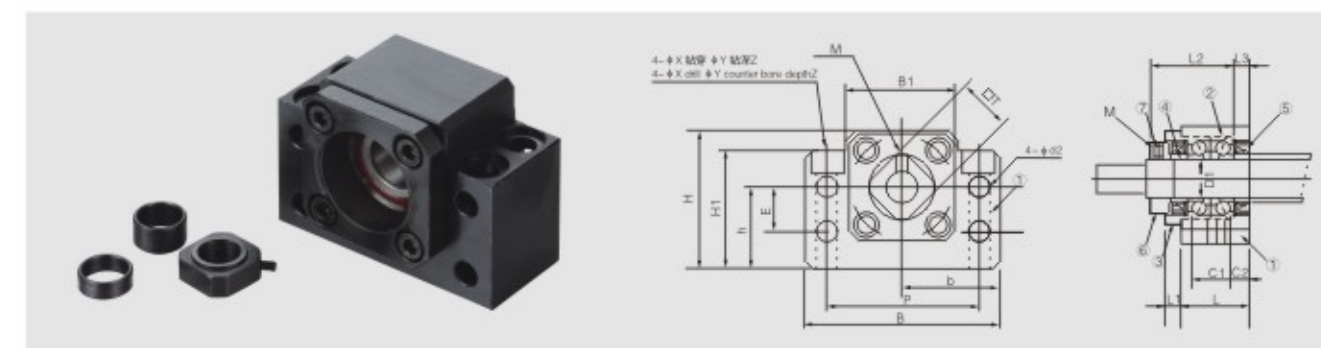


型号 MODEL NUMBER BF型	适用轴杆外径 BALL SCREW OUTSIDE DIAMETER D	D1	E	c型扣环 LOCATING SNAP RING			型号 MODEL NUMBER BF型
				A	B	C	
BF-12	φ14, φ15, φ16, φ18	10	11	9.6	1.15	9.15	BF-12
BF-15	φ18, φ20	15	13	14.3	1.15	10.15	BF-15
BF-17	φ20, φ25	17	16	16.2	1.15	13.15	BF-17
BF-20	φ25, φ28	20	16	19.0	1.35	13.35	BF-20

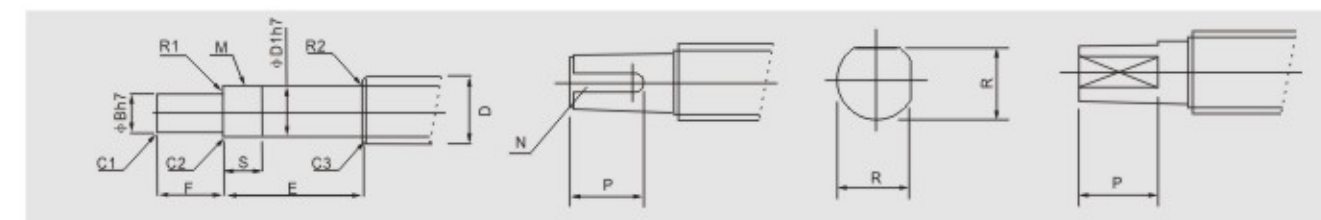
 滚珠丝杠支撑座固定端
 Ball screws supports

编号 PARK NO.	部品名称 PARK NAME	数量 QTY
1	轴承座本体 Housing	1
2	轴承 Bearing	2
3	压板 Holding lid	1
4	间隔圈 Collear	2

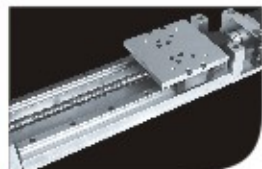
编号 PARK NO.	部品名称 PARK NAME	数量 QTY
5	轴封 Seal	2
6	锁固螺帽 Lock nut	1
7	内六角防松螺丝附铜片 Hexagon socket-head Setscrew (with set piece)	1



型号 MODEL NO.	轴径 SHAFT DIAMETER D1	L	L1	L2	L3	B	H	b	h	B1	H1	E	P	C1	C2	d2	X	Y	Z	M	T
								±0.02	±0.02												
BK12	12	25	6	29	5	60	43	30	25	35	32.5	18	46	13	6	5.5	6.6	11	1.5	M3	19
BK15	15	27	6	32	6	70	48	35	28	40	38	18	54	15	6	5.5	6.6	11	6.5	M3	22
BK17	17	35	9	44	7	86	64	43	39	50	55	28	68	19	8	6.6	9	14	8.5	M4	24
BK20	20	35	8	43	8	88	60	44	34	52	50	22	70	19	8	6.6	9	14	8.5	M4	30



型号 MODEL NUMBER BK型	适用轴杆外径 BALL SCREW OUTSIDE DIAMETER D	D1	B	E	F	M	S	倒角 CHAMFER			圆角半径 RADIUS		H1 键槽(宽x深) KEY WAY DIMENSION		H2	
								C1	C2	C3	R1	R2MAX	N	P	R	P
BK12	φ14, φ15, φ16, φ18	12	10	39	15	M12x1	14	0.5	0.5	0.5	0.3	0.6	3x1.8	12	9.5	12
BK15	φ18, φ20	15	12	40	20	M15x1	12	0.5	0.5	0.5	0.3	0.6	4x2.5	16	11.3	16
BK17	φ20, φ25	17	15	53	23	M17x1	17	0.5	0.5	0.5	0.3	0.6	5x3.0	21	14.3	21
BK20	φ25, φ28	20	16	53	25	M20x1	15	0.5	0.5	0.5	0.3	0.6	5x3.0	21	16	21


 模块式滑台
 Work table

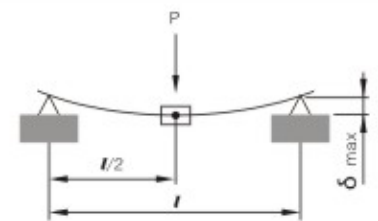
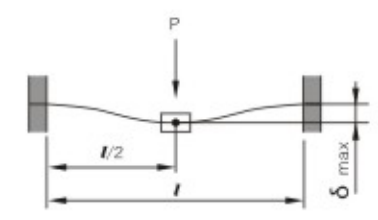
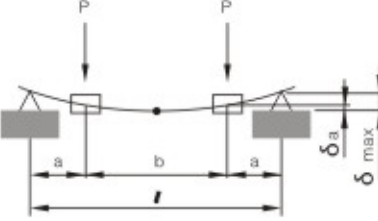
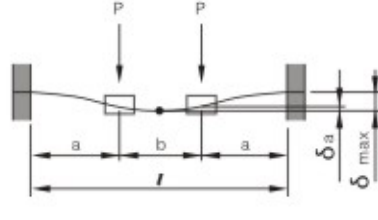
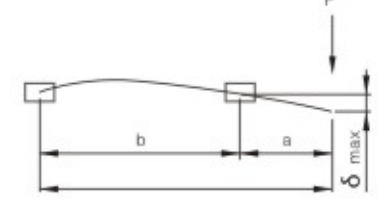

型号 MODEL NO.	高度 Height	宽度 Width	额定载荷 Load Rating	总长 Total Length
Ts65120	65	120	50kg	224+最大行程(最长600)
Ts76200	76	200	80kg	244+最大行程(最长1000)

滑台由57机座号步进电机+滚珠丝杠副带动作往复直线运动，丝杠两侧由直线导轨导向，丝杠电机端用BK支撑座固定，内部角接触轴承可承受两个方向轴向载荷。丝杠另一端用BF支撑座固定，内部向心轴承可以游动以补偿丝杠热长，既可以单轴使用，又能方便地组合成X、Y二坐标或X、Y、Z三坐标工作台，充分体现了模块化功能部件的灵活性。

模块式滑台，定位精度小于0.05mm，可做斜线、圆弧插补。

The sliding table do back and forth linear motion by No.57 step motor and ball screw. The screw on both side move by linear guides. One side near the motor fixed by BK support. The inner angular contact bearing can suffer axial load from two direction. The other side is fixed by BF support, Inner bearing can roll to compensate the screws elongate. Not only can single used, but also can convenien combined into X, Y coordinate, or X, Y Z coordinate working table, which fully reflects the flexibility of modular functional components. Modular slide positioning accuracy is less 0.05mm, which can do slash, circular interpolation.

轴挠度计算公式

支撑与载荷形式	挠度计公式
	$\delta_{\max} = \frac{P \cdot l^3}{48 \cdot E \cdot I} = 2.021 \times 10^{-5} \frac{P \cdot l^3}{d^4}$
	$\delta_{\max} = \frac{P \cdot l^3}{192 \cdot E \cdot I} = 5.053 \times 10^{-6} \frac{P \cdot l^3}{d^4}$
	$\delta_a = \frac{P \cdot a^2}{6 \cdot E \cdot I} (2a+3b) = 1.617 \times 10^{-4} \frac{P \cdot a^2 (2a+3b)}{d^4}$ $\delta_{\max} = \frac{P \cdot a^2}{24 \cdot E \cdot I} (3l^2 - 4a^2) = 4.042 \times 10^{-5} \frac{P \cdot a (3l^2 - 4a^2)}{d^4}$
	$\delta_a = \frac{P \cdot a^3}{6 \cdot E \cdot I} (2 - \frac{3a}{l}) = 1.617 \times 10^{-4} \frac{P \cdot a^3 (2 - \frac{3a}{l})}{d^4}$ $\delta_{\max} = \frac{P \cdot a^2}{24 \cdot E \cdot I} (2a+3b) = 4.042 \times 10^{-5} \frac{P \cdot a^2 (2a+3b)}{d^4}$
	$\delta_{\max} = \frac{P \cdot a^2 \cdot l}{3 \cdot E \cdot I} = 3.234 \times 10^{-4} \frac{P \cdot a^2 \cdot l}{d^4}$

E: 弹性模量 2.1×10^4 (kgf/mm²)

P: 工作载荷 (kgf)

I: 惯性矩 (mm⁴); 实心轴: $I = \pi d^4 / 64$, 空心轴: $I = \pi (d^4 - d_i^4) / 64$

[Di: 内径 (mm), d: 外径 (mm)]

销售网点

恒力已在世界各地及国内各省市设置了完善的销售与服务网络，为您提供准确、高效的服务，并及时与总公司联系，竭诚为您提供直线运动球轴承和相关直线运动系列产品、及时了解并解决直线运动产品的相关问题。

