直线运动及导向产品系列

您正浏览“直线导轨”手册，其他产品信息详见对应产品手册。
You Are Reading The "Linear Guide" Manual. For Other Product Information, Please Refer To The Corresponding Product Manual.

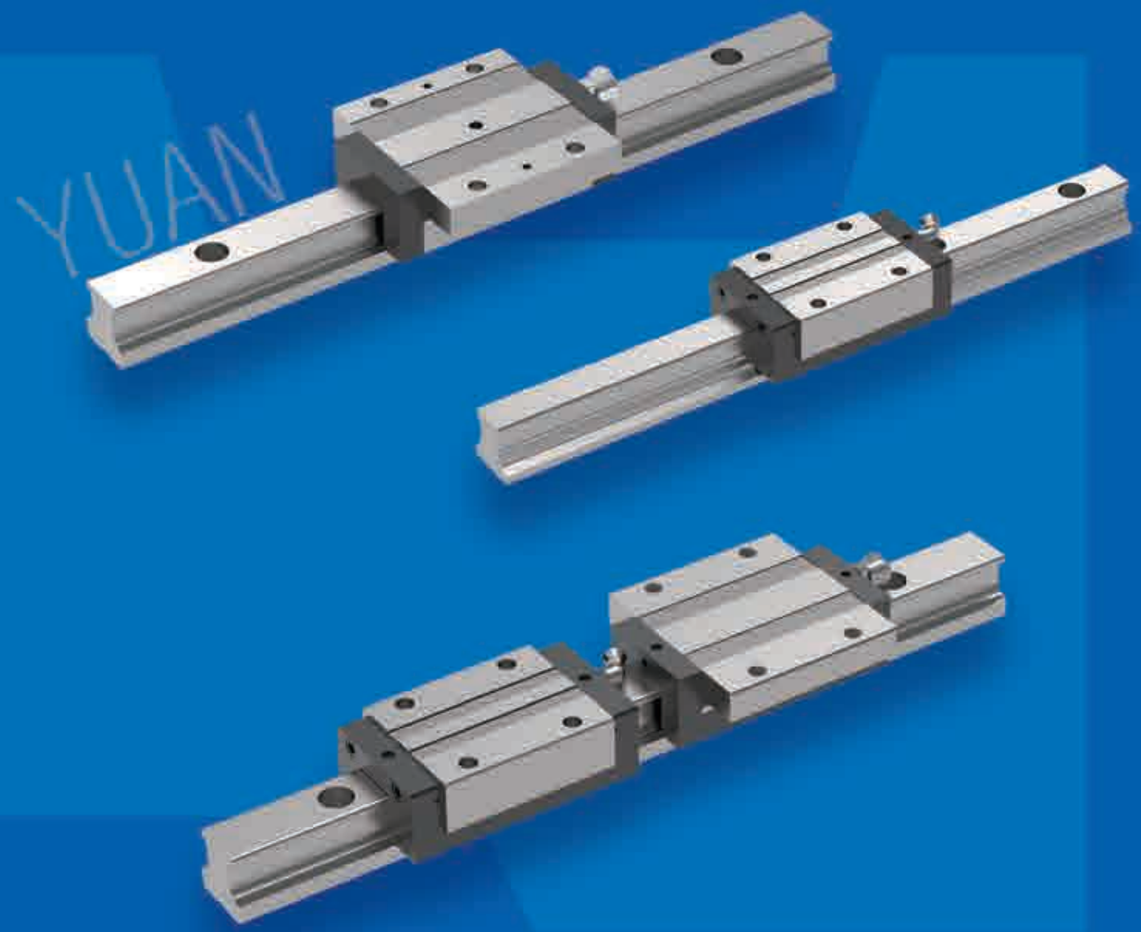
■ 螺杆系统 SCREW SYSTEM
■ 工业机械手 LINEAR MODULE
■ 直线导轨 LINEAR GUIDE
■ 联轴器 COUPLING

WEIYUAN
LINEAR PRODUCT
威远直线运动产品系列

直线导轨
LINEAR GUIDE

本产品手册表示的技术规格是准确可靠的。用户应仔细认真地确定选用产品的适宜性。若有不详或与我公司技术部门联系。尽管我们将对有缺陷的产品予以更换，但我们不承担超出此种更换以外的任何责任。

The Technical Specifications Indicated In This Product Manual Are Accurate And Reliable. Users Should Carefully Determine The Suitability Of The Selected Product. If There Is Any Uncertainty, Please Contact Our Technical Department. Although We Will Replace Defective Products, We Do Not Accept Any Responsibility Beyond Such Replacement.



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2024 年 01 月版

LEADING LINEAR MOTION PRODUCT MANUFACTURER

精益求精 创新不止

KEEP IMPROVING KEEP INNOVATION

威远为航天航空、智慧车辆、医疗器械、光热发电、工业自动化等领域提供优质可靠的产品，秉承工匠精神为打造“百年工业品牌”而不懈努力！

WEIYUAN provides high-quality and reliable products for Aerospace, Smart Vehicles, Medical Equipment, SolarThermal Power Generation, Industrial Automation and other fields. Weiyuan makes unremitting efforts to build "100-year Industrial Brand"!

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领先工艺 精益制造

LEADING TECHNOLOGY LEAN MANUFACTURING

公司以雄厚的技术力量，完善的企业运营及生产管理制度、一流的品质及服务质量，赢得了广大乃至海外客户的认可和赞誉。公司在研发设备、技术工艺及产品质量等方面均属国内领先水平。

The company has strong technical force, perfect enterprise operation and production management system, first-class quality and service quality, and has won the recognition and praise of the majority of customers and even overseas customers. The company is a domestic leader in research and development equipment, technology and product quality.

30项
自主专利技术
Independent Patent Technology

30000 m²
生产基地
Production Base

500000 套
产能
Production Capacity

1995 年
公司创立
Founded

2002 年
深圳总部基地和研发中心建立
Shenzhen Headquarters and R&D Center Established.

2005 年
成功开发多款先进滚珠循环系统
A variety of advanced ball circulation systems were successfully developed.

2009 年
国家高新技术企业
National High-Tech Enterprise.

2012 年
多款自研工业机械手面市
A variety of self-developed industrial robots are launched.

2016 年
安徽生产基地正式投产，成为行业标杆
Anhui production base officially put into production, becoming the industry benchmark.

2017 年
广东省著名商标
Famous Brand of Guangdong Province.

2020 年
总体技术及应用达到国际先进水平
The overall technology and application reach the international advanced level.

2022 年
国家级专精特新“小巨人”企业
National Small Giant Enterprise.

2024 年
深圳总部落地龙岗宝龙
Shenzhen headquarters landing in Longgang Baolong.





威远介绍
COMPANY PROFILE

威远自1995年创立以来倾心致力于滚珠丝杠、直线导轨、直线运动单元、机械手和工业执行器等产品的研发制造，并向客户提供成套的自动化解决方案。

威远拥有一流的研发团队和多项自主专利技术，在华南、华东设有生产基地，在北京、上海、成都、西安等地设立营销及服务中心，产品销往全球30多个国家及地区。

威远旗下拥有二大著名品牌“WEIYUAN威远”、“WARNER华纳”，现已成为国内配套最齐全、综合生产能力最大的直线运动产品生产基地，国内领先的直线运动产品和自动化解决方案供应商。

WEIYUAN dedicates to the R&D and production of Ball Screws, Ball Rail and Industrial Actuators etc, and provides customers with complete automation solutions.

WEIYUAN has a first-class R&D team and a number of independent patented technologies. It has production bases in South China and East China, and marketing and service centers in Beijing, Shanghai, Chengdu, Xi'an and other places. The products are sold to more than 30 countries and regions around the world.

WEIYUAN has two well-known brands "WEIYUAN " and "WARNER ". Now it has become the production base of linear motion products with the largest comprehensive production capacity in China, and the leading domestic supplier of linear motion products and automation solutions.



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WEIYUAN LINEAR GUIDE 直线导轨

前言 Preface

线性滑轨作为一种滚动导引，藉由钢珠在滑块与滑轨之间作无限滚动循环，负载平台能沿着滑轨轻易地以高精度作线性运动。与传统的滑动导引相比，滚动导引的摩擦系数可降低至原来的 1/50, 由于起动的摩擦力大大减少，相对的较少发生无效运动，所以能轻易达到 μm 级进给及定位。再加上滑块与滑轨间的限制单元设计，使用线性滑轨可同时承受上下左右等各方向的负荷，上述指出特点并非传统滑动导引所能比拟，因此机器若能配合滚珠螺杆，使用线性滑轨作导引，必能大幅提高设备精度与机械效率。

As a kind of rolling guide, the loading platform can move along the sliding rail easily and with high precision by the infinite rolling cycle between the steel ball and the sliding rail. Compared with the traditional sliding guide, the friction coefficient of the rolling guide can be reduced to 1/50 of the original, because the starting friction is greatly reduced, relatively less ineffective motion, so it can easily reach the μm progression and positioning. Coupled with the design of the limiting unit between the slide block and the slide rail, the use of linear slide rail can bear the load in all directions at the same time, the above pointed out that the characteristics are not comparable to the traditional slide guide, so if the machine can cooperate with the ball screw, the use of linear slide guide, will greatly improve the accuracy and mechanical efficiency of the equipment.

一、基本资料
Basic Data

1-1 线性滑轨优点
Advantages Of Linear Slide Rails

(1) 定位精度高

High Positioning Accuracy

使用线性滑轨作为线性导引时，由于线性滑轨的摩擦方式为滚动摩擦，不仅摩擦系数降低至滑动导引的 1/50 , 动摩擦力与静摩擦力的差距也变得很小。因此当床台运行时，不会有打滑的现象发生，可达到 μm 级的定位精度。

When linear guide rail is used as linear guide rail, because the friction mode of linear guide rail is rolling friction, not only the friction coefficient decreases to 1/50 of the sliding guide, but also the difference between dynamic friction and static friction force becomes very small. Therefore, when the bed is running, there will be no skid phenomenon, and the positioning accuracy of μm can be reached.

(2) 磨损少能长时间维持精度

Less Wear Can Maintain Accuracy For A Long Time

传统的滑动导引，无可避免的会因油膜逆流作用造成平台运动精度不良，且因运动时润滑不充分，导致运行轨道接触面的磨损，严重影响精度。而滚动导引的磨耗非常小，故机台能长时间维持精度。

Traditional sliding guidance will inevitably cause poor accuracy of platform motion due to counter current action of oil film, and insufficient lubrication during movement will lead to wear of the contact surface of running track, which seriously affects accuracy. The wear of the rolling guide is very small, so the machine can maintain the accuracy for a long time.

(3) 适用高速运动且大幅降低机台所需驱动扭矩

It Is uitable For High-speed Movement And Greatly Reduces The Driving Torque Required By The Machine

由于线性滑轨移动时摩擦力非常小，只需较小动力便能让床台运行，尤其是在床台的工作方式为经常性往返运行时，更能明显降低机台电力损耗量。且因其摩擦产生的热较小，可适用于高速运行。

Because the friction is very small when the linear slide rail moves, it only needs small power to make the bed run, especially when the working mode of the bed is regular round-trip running, it can significantly reduce the power loss of the machine. And because of its friction generated less heat, can be suitable for high-speed operation.

(4) 可同时承受上下左右方向的负荷

Can Bear Up And Down The Left and Right Direction Of load At The Same Time

由于线性滑轨特殊的限制结构设计，可同时承受上、下、左、右方向的负荷，不像滑动导引在平行接触面方向可承受的侧向负荷较轻，易造成机台运行精度不良。

Due to the special limited structure design of linear slide rail, it can bear the load in the upper, lower, left and right directions at the same time. Unlike the slide guide in the direction of parallel contact surface, the side load it can bear is light, which is easy to cause poor operation accuracy of the machine.

(5) 组装容易并具互换性

Easy Assembly And Interchangeability

组装时只要铣削或研磨床台上滑轨的装配面，并依据建议的步骤将滑轨、滑块分别以特定扭力固定于机台上，即能恢复加工时的高精密度。传统的滑动导轨，则须对运行轨道加以铲花，既费事又费时，且一旦机台精度不良，又必需再铲花一次。线性滑轨具有互换性，可分别更换滑块或滑轨甚至是线性滑轨组，机台即可重新获得高精密度的导引。

During assembly, as long as the assembly surface of the slide rail is milling or grinding on the table, and the slide rail and slide block are fixed on the machine with a specific torque according to the recommended steps, the high precision can be restored during processing. Traditional sliding guide rail, it is necessary to shovel flowers on the running track, which is laborious and time-consuming, and once the machine precision is poor, it must shovel flowers again. The linear slide rails have interchangeability, and the slide blocks or slide rails or even linear slide groups can be replaced respectively, so that the machine can regain the guidance of high precision.

1-2 选用准则
Selection Criteria

使用条件设定
Service Condition Setting

○ 应用的设备	Applied Equipment	○ 行程	Stroke
○ 内部空间的限制	Internal Space Constraints	○ 运行速度、加速度	Running Speed and Acceleration
○ 精度的要求	Requirement Of Precision	○ 使用频率	Frequency Of Use
○ 刚性的要求	Rigidity Requirement	○ 使用环境	Use Environment
○ 负荷方式	Load Mode	○ 要求寿命年限	Required Life

选用系列产品
Select Series Products

○ DB-GH 系列：磨床、铣床、车床、钻床、综合加工机、放电加工机、镗床、线切割机、精密测量仪器、木工机器、搬运机器、运送装置。
DB-GH Series: Grinding Machine, Milling Machine, Lathe, Drilling Machine, Integrated Processing Machine, Discharge Processing Machine, Boring Machine, Line Cutting Machine,Precision Measuring Instruments, Woodworking Machines, Handling Machines, Transport Devices

○ DB-GE 系列：产业自动化机器、半导体机械、激光雕刻机、包装机器。
DB-GE Series: Industrial Automation Machine, Semiconductor Machinery, Laser Engraving Machine, Packaging Machine

选用精度等级
Selection Accuracy Class

○ C,H,P,SP,UP 等级视设备精度要求而定
C,H,P,SP,UP The grade depends on the accuracy requirements of the equipment

假设滑块尺寸及数目
Assume Size And Number Of Sliders

○ 依经验选用 Choose by experience
○ 负荷状态 Load condition
○ 若与滚珠螺杆配合使用，则使用的线性滑轨规格与螺杆外径相似，例如螺杆外径为 32mm, 则要挑相似 GH35 的规格。 If it is used with ball screw, the specification of linear slide rail used is similar to the outside diameter of screw. For example, if the outside diameter of screw is 32mm, the specification similar to GH35 should be selected

计算滑块最大负荷
Calculate The Maximum Load Of The Slider

○ 参照负荷计算例计算单个滑块最大等效负荷
Calculate the maximum equivalent load of a single slider by referring to the load calculation example

○ 确认选用的线性滑轨静安全系数应超过静安全系数使用表所列的值
Confirm that the selected linear slide static safety factor should exceed the value listed in the table of static safety factor

选择预压力
Selective Prepressure

○ 依刚性要求及安装面精度选用
According to the rigidity requirements and installation surface precision selection

确认刚性
Confirmed Rigidity

○ 参照刚性表计算变形量
Calculate the deformation with reference to the rigidity table
提高预压力，加大选用尺寸或滑块数以提高刚性
increase the prepressure, increase the selection size or number of sliding blocks to improve the rigidity

计算使用寿命
Calculated Service Life

○ 依据使用速度、频率计算寿命距离要求
Life distance requirement is calculated according to service speed and frequency
依据寿命公式计算选定线性滑轨的寿命距离
The life distance of the selected linear slide is calculated according to the life formula

润滑选用
Lubrication Selection

○ 滑剂选用，依设备需求可选择润滑脂、润滑油或特殊润滑剂润滑
定期注入润滑脂或自动供油
Lubricant selection, according to the requirements of the equipment can choose grease, lubricating oil or special lubricant lubrication
lubrication regular injection of grease or automatic oil supply

线性滑轨选用完成
Linear Slide Selection Is Complete

1-3 额定负荷
Fixed Load

1-3-1 基本静额定负荷
Basic Static Rated Load

(1) 基本静额定负荷 (Co) 的定义 **Definition of basic static load rating (Co)**

线性滑轨在静止或运动中若承受过大的负荷，或受有很大冲击负荷时，会导致滚道按触面和钢珠产生局部的永久变形；当永久变形量超过某一限度，将妨碍线性滑轨运动的平稳性。基本静额定负荷便是容许这个永久变形量的极限负荷。依照定义：负荷的方向和大小不变的状态下，在受到最大应力接触面处，钢珠与滚道表面的总永久变形量恰为钢珠直径万分的一时的静止负荷。

If the linear slide rail bears too much load at rest or in motion, or is subjected to a large impact load, it will cause the raceway to produce local permanent deformation according to the contact surface and steel ball; When the permanent deformation exceeds a certain limit, the stability of the linear slide will be hindered. The basic static load rating is the ultimate load that allows this permanent deformation. According to the definition: under the condition that the direction and magnitude of the load remain unchanged, the total permanent deformation of the ball and raceway surface at the contact surface under the maximum stress is exactly the temporary static load of the ball with a diameter of 10,000.

基本静额定负荷的数值详列于各规格尺寸表中；用户可参照表格选用适合的线性滑轨，但必须注意的是被选用的线性滑轨在运行中所受的最大静负荷不可超过其基本静额定负荷。

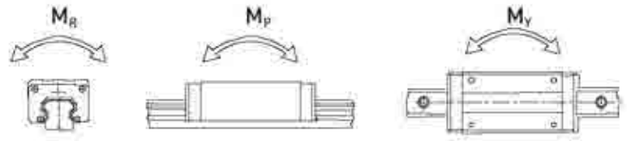
The basic static rated load is listed in detail in each specification table. Users can refer to the table to select a suitable linear slide, but it must be noted that the maximum static load of the selected linear slide in operation should not exceed its basic static rated load

(2) 容许静力矩 (Mo) 的定义

Definition of allowable static moment (Mo)

当滑块中受到最大应力的钢珠达到上述定义的静额定负荷时，此时滑块所承载的力矩称为静额定力矩。在线性滑轨运动中是以 Mr、Mp、My 这三个方向来定义：

When the steel ball under maximum stress in the sliding block reaches the static rated load defined above, the moment borne by the sliding block is called the static rated moment. In linear slide motion, it is defined by the three directions of Mr, Mp and My:



(3) 静安全系数

Static safety factor

当线性滑轨使用在慢速运动或运动频率不高的状况下需考虑静安全系数。根据不同的使用状况，计算静负荷必须考虑不同的安全系数，尤其是当滑轨受有冲击性负荷时，需要敢用较大的安全系数。

The static safety factor should be considered when the linear slide is used in the condition of slow movement or low movement frequency. According to different use conditions, the calculation of static load must consider different safety factors, especially when the slide rail is subjected to impact load, the need to dare to use a larger safety factor

静安全系数使用

Static Safety Factor Used

负载条件 Load Conditions	f_{SL}、f_{SM} 下限 Lower Limit
一般运行状况 General Operating Conditions	1.0~3.0
运行时受冲击、振动 Shock And Vibration During Operation	3.0~5.0

$$f_{SL}=\frac{C_0}{P} \text{ 或是 or } f_{SM}=\frac{M_0}{M} \quad \text{Eq.1.1}$$

f_{SL}：静安全系数　f_{SL} : Static safety factor

f_{SM}：静安全系数（力矩负荷）　f_{SM} : Static safety factor (torque load)

C_0：基本静额定负荷 (kN)　C_0 : Basic static load rating (kN)

M_0：容许静力矩 (kN.m)　M_0: Allowable static moment (kN.m)

P ：工作负荷 (kN)　P :Working load (kN)

M ：静力矩负荷 (kN. m)　M :Static moment load (kN.m)

1-3-2 基本动额定负荷
Basic Operating Load Rating

(1) 基本动额定负荷 (C) 的定义

Basic dynamic load (C) definition

基本动额定负荷用于线性滑轨承受负荷并做滚动运动时的寿命计算。其定义是在负荷的方向和大小不变的状态下，线性滑轨的额定寿命为 50 k m 时（滚柱式线性滑轨为 100 k m）的最大负荷，此值详列于各规格尺寸表中，使用者可藉由此值预先估算出选用的线性滑轨的额定寿命。

Basic dynamic load rating is used to calculate the life of linear slide under load and rolling motion. It is defined as the maximum load when the rated life of linear slide is 50 km (roller type linear slide is 100 km) under the condition that the direction and size of the load are unchanged. This value is listed in detail in the table of specifications and sizes. Users can estimate the rated life of the selected linear slide in advance by using this value.

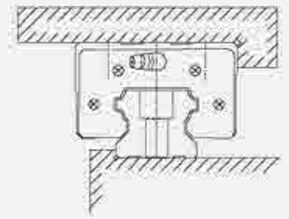
1-4 线性滑轨的配置
Configuration Of Linear Slide Rails

线性滑轨能承受上、下、左、右方向负荷，因此可根据机台结构与工作负荷方向配置线性滑轨组。

Linear slide can bear up, down, left, right direction load, so it can be configured according to the structure of the machine and the direction of the workload linear slide group.

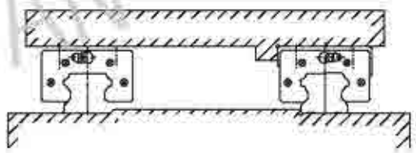
单支滑轨有承靠面配置

Single Slide Rail With Supporting Surface Configuration



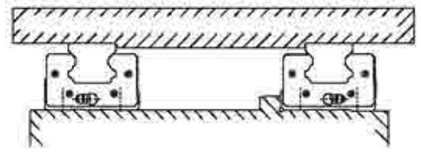
两支滑轨滑块移动配置

Two Slide Rail Slider Movement Configurations



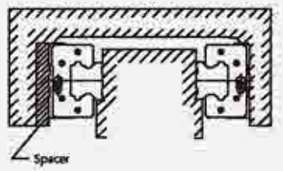
两支滑轨滑块移动配置

Two Slide Rail Slider Movement Configurations



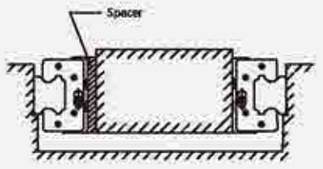
相对两支滑轨配置

Relative Configuration Of Two Sliding Rails



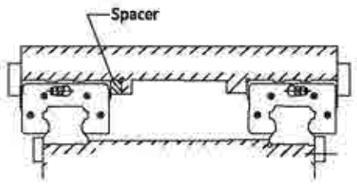
背向两支滑轨配置

Two Backward-Facing Slide Rails



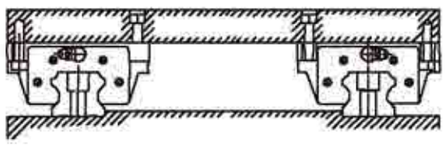
全面固定配置

Full Fixed Configuration



HGW型滑块装配螺栓取不同方向配置

HGW Type Slider Assembly Bolts Are Configured In Different Directions



1-5 线性滑轨的安装
Installation Of Linear Slide Rails

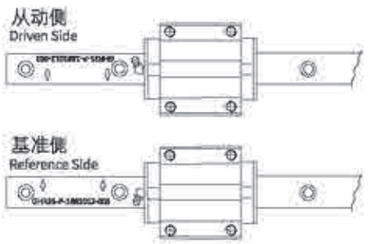
线性滑轨必须根据机台使用状况，如受振动、冲击力的程度，要求的行走精度及机台限制而设定其安装方法。

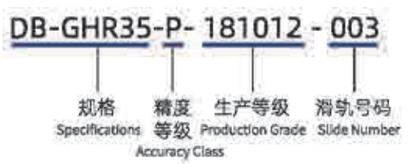
The installation method of linear slide rail must be set according to the use condition of the machine, such as the degree of vibration and impact force, the required walking accuracy and the machine restrictions.

1-5-1 基准轨与从动轨
Reference Rail And Driven Rail

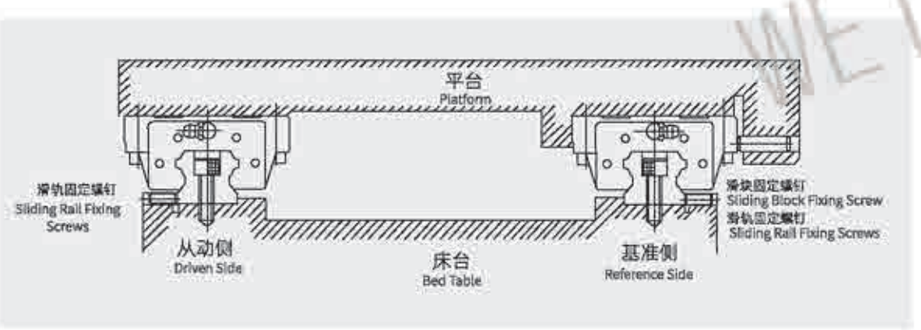
当非互换型线性滑轨配对使用时，需注意基准轨与从动轨的差异。基准轨侧边基准面精度较从动轨高，可作为床台安装承靠面。基准轨上有刻上 MA 的记号，如图所示

When the non-interchangeable linear slide is used in pairs, the difference between the reference rail and the driven rail should be noted. The precision of reference rail side datum is higher than that of driven rail, which can be used as a bed to install the supporting surface. The reference rail is marked with MA, as shown in the figure





1-5 -2 床台受到振动及冲击力作用，且要求高刚性、高精密度的安装
The bed is subject to vibration and impact force, and requires high rigidity and high precision installation

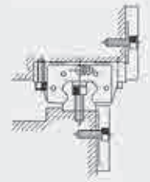


(1) 固定方式
Fixed Mode

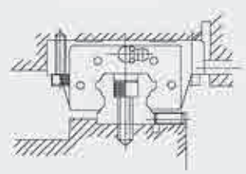
床台受到振动、冲击力的作用时，滑轨及滑块恨可能偏离原来的固定位置，而影响精度。为避免发生类似的状况，建议使用下图所列的四种固定方式固定滑轨及滑块，以确保机台的运行精度。

When the bed is subjected to vibration and impact force, the slide rail and slide block are likely to deviate from the original fixed position, and affect the accuracy. In order to avoid similar situations, it is recommended to use the four fixing methods listed in the following figure to fix the slide rail and slide block, so as to ensure the running accuracy of the machine.

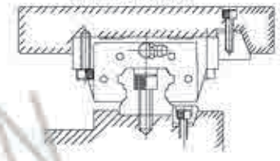
使用压板固定
Fix With Pressure Plate



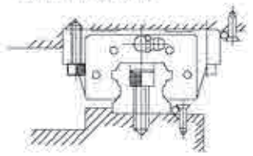
使用螺钉固定
Fix With Screws



使用推拔(Taper)固定
Fixation Using Taper

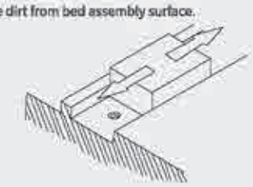


使用滚柱(Needle Roller)固定
Fix With Needle Rollers

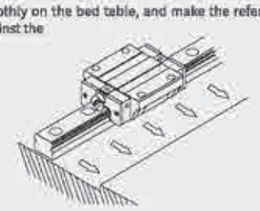


(2) 滑轨安装
Mounting Of Slide Rail

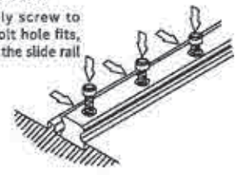
1 清除床台装配面的污物。
Remove dirt from bed assembly surface.



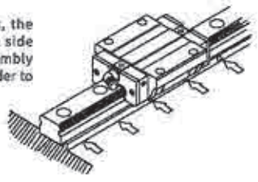
2 将线性滑轨平稳的放在床台上，并让滑轨侧边基准面靠上床台装配面。
Place the linear slide rail smoothly on the bed table, and make the reference surface of the slide rail side against the bed table assembly surface.



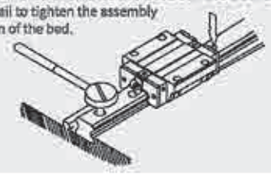
3 试锁装配螺丝以确认螺栓孔是否吻合，并将滑轨底部基准面大概固定于床台底部装配面。
Test the lock assembly screw to confirm whether the bolt hole fits, and fix the base level of the slide rail roughly to the assembly surface at the bottom of the bed.



4 使用侧向固定螺钉，按顺序将滑轨侧边基准面逼紧床台侧边装配面，以确定滑轨位置。
Using lateral fixing screws, the datum surface of the slide side is pressed against the assembly surface of the bed side in order to determine the slide position.



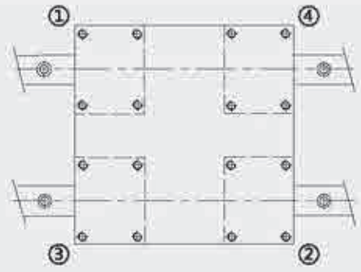
5 使用扭力板手，以特定扭力按顺序锁紧装配螺丝，将滑轨底部基准面逼紧床台底部装配面。
Use torsion plate hand to lock the assembly screws in sequence with specific torsion force and force the base surface at the bottom of the slide rail to tighten the assembly surface at the bottom of the bed.



6 依步骤 1 至 5 安装其余配对滑轨。
Follow Steps 1 to 5 to install other matching slides.

WEIYUAN LINEAR GUIDE 直线导轨

(3) 滑块安装
Slider Mounting



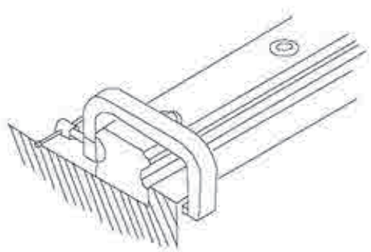
- 使用装配螺丝将承载平台大概固定于滑块上
  The bearing platform is approximately fixed to the slider using assembly screws
- 使用固定螺丝将滑块侧边基准面紧固于平台侧边装配面上，以确定滑块位置
  Fix the datum of the slide block side to the platform side assembly surface by fixing screws to determine the position of the slide block
- 锁紧装配螺丝将承载平台按 1-4 对角线顺序紧固于滑块上
  Lock the assembly screws to fasten the bearing platform to the slide block in a 1-4 diagonal sequence

1-5 -3 滑轨无侧向固定螺钉的安装
Mounting of slide rails without lateral fixing screws

在无固定螺订的安装例中为确保从动侧滑轨与基准侧轨间的平行度，滑轨可依下列所示安装，而滑块的安装则与前述范例相同。

To ensure the parallelism between the driven side rail and the reference side rail in the installation example without fixed screws, the slide rail may be installed as shown below, while the slide block installation is the same as in the preceding example.

(1) 基准侧滑轨的安装
Installation Of Reference Side Slide Rails

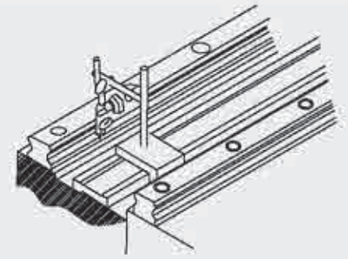


- 虎钳夹紧法
  Vise grip method

  先使用装配螺丝将滑轨底部基准面大概固定于床台底部装配面，再用虎钳将滑轨侧边基准面逼紧床台侧边装配面以确定滑轨位置后，使用扭力板手，以一定的扭力按顺序锁紧固定螺丝将滑轨底部基准面逼紧床台底部装配面。

  First, the datum surface at the bottom of the slide rail is approximately fixed to the assembly surface at the bottom of the bed table by using assembly screws. Then, the datum surface at the side of the slide rail is forced to the assembly surface at the side of the bed table by using vice to determine the position of the slide rail. Then, the datum surface at the bottom of the slide rail is forced to the assembly surface at the bottom of the bed table by using torsion plate hands to lock the encircling screws in sequence with a certain torque force.

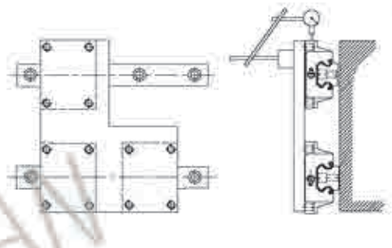
(2) 从动侧滑轨的安装
Installation Of Driven Side Slide Rails



- 直线块规法
  Rectilinear Block Gauge Method

  将直线块规置于两支滑轨间，使用千分量表校准直线块规，使之与基准侧滑轨的侧边基准面平行，再依直线块规校准从动侧滑轨，从滑轨的一端开始校准并依序以特定的扭力锁紧装配螺丝。

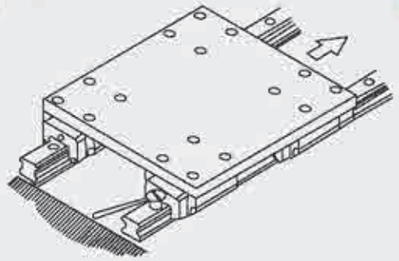
  The linear block gauge is placed between the two slide rails, and the linear block gauge is calibrated with the meter to make it parallel to the side datum of the reference side slide rail. Then the driven side slide rail is calibrated according to the linear block gauge, starting from one end of the slide rail and locking the assembly screws with specific torque force in sequence.



- 移动平台法
  Mobile Platform Method

  将基准侧两个滑块固定在一个测定平台上，而从动侧只装上一个滑块，其滑轨与滑块都尚未紧固于床台与平面，使用附于从动侧滑块顶血千分量表，量测从动侧滑块的侧基准面，从滑轨的一端开始校准并依序以特定的扭力锁紧装配螺丝。

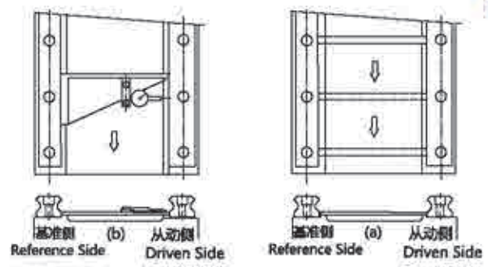
  The two sliding blocks of the reference side are fixed on a measuring platform, while only one sliding block is installed on the driven side. The sliding block and the sliding block are not fastened to the bed and plane. The side datum of the sliding block is measured with the blood dry submeter attached to the driven side sliding block, and the assembly screws are calibrated from one end of the sliding rail and locked with specific torque force in sequence.



- 仿效基准侧滑轨法
  Follow The Reference Side Slip Method

  将基准侧线轨的两个滑块及从动侧线轨其中一个滑块固定于平台，再将从动侧的滑轨及其另一个滑块约略分别固定于床台及平台，以基准侧滑轨为准移动平台，从滑轨端开始，边确认从动侧线性滑轨的滚动阻力，边依序以特定的粗力锁紧装配螺丝。

  The two sliding blocks of the reference side rail and one of the sliding blocks of the driven side rail are fixed on the platform, and then the sliding block of the driven side and the other sliding block are roughly fixed on the bed and platform respectively. The platform is moved with the reference side slide as the standard. Starting from the end of the slide rail, the rolling resistance of the linear slide on the driven side is confirmed, and the assembly screws are locked with specific coarse force in sequence.



- 专用工具法
  Special Tool Method

  使用专用工具确定从动侧滑轨的位置，并依序以特定的扭力锁紧装配螺丝。

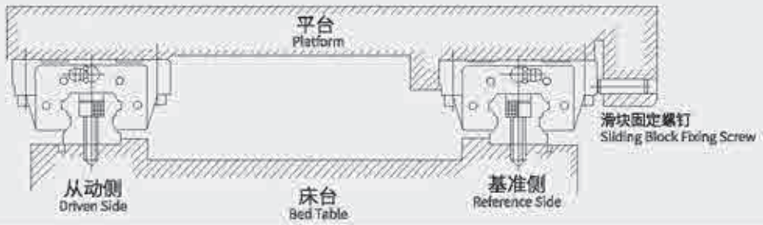
  Use special tools to determine the location of the driven side slide rail, and in order to lock the assembly screws with a specific torque force.

1-5-4 滑轨无侧向定位装配面的安装

Mounting of slide rail without lateral positioning assembly surface

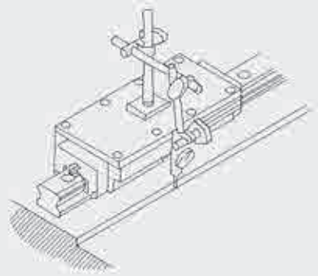
在无侧向定位装配面的安装例中为确保从动侧滑轨与基准侧滑轨间的平行度，滑轨可依下列所示安装，而滑块的安装则与前述范例相同。

In the installation example without lateral positioning assembly surface, to ensure the parallelism between the driven side slide and the reference side slide, the slide rail can be installed as shown below, while the slide block installation is the same as the preceding example.



(1) 基准侧滑轨的安装

Installation Of Reference Side Slide Rails

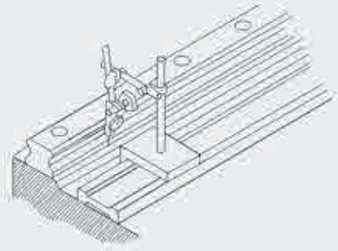


假基准面法

False Datum Method

使用两个滑块紧密接合固定于测定用平板，依床台滑轨装配附近的基准面为准，使用千分量表校准基准侧滑轨的侧边基准面，从滑轨的一端开始校准并依序以特定的扭力锁紧装配螺丝。

The two sliding blocks are fixed on the measuring plate closely together. According to the datum plane near the bed slide rail assembly, the side datum plane of the reference side slide rail is calibrated with the kilometer, starting from one end of the slide rail and locking the assembly screws with specific torque force in sequence.



直线块规法

Rectilinear Block Gauge Method

依直线块规，使用千分量表校准基准侧滑轨的侧边基准面，从滑轨的一 - 端开始校准并依序以特定的扭力锁紧装配螺丝。

In accordance with the linear block gauge, the side datum of the reference sidetrack is calibrated using a kilometer, starting from the one - end of the slide track and locking the assembly screws with a specific torque in sequence.

(2) 从动侧滑轨的安装

Installation Of Driven Side Slide Rails

与无侧向固定螺钉安装例所列的方法相同。

The installation method is the same as that listed in the example without lateral screws.

二、产品系列

Product Series

为服务客户因其对产品多样性的需求研究开发出适用一 - 般工具机产业的 GH 系列以及适合自动化产业的 GE 系列。

In order to serve customers because of their demand for product diversity, we have developed GH series suitable for a general tool machine industry and GE series suitable for automation industry.

(1) 系列型式

Series Type

系列型式总表

series type summary tablesuitable for automation industry.

系列 Series	组合高度 Combined Height	负荷形式 Load Pattern	四方形 Square	法兰型 Flange Type		
			上锁式 Upward Locking Type	上锁式 Upward Locking Type	下锁式 Downward Locking Type	上下锁式 Upward And Downward Locking Type
GH	高型 High Type	重负荷 Heavy Duty	DB-GHH-CA	-	-	-
		超重负荷 Overweight Load	DB-GHH-HA	-	-	-
	低型 Low Type	重负荷 Heavy Duty	DB-GHL-CA	DB-GHW-CA	DB-GHW-CB	DB-GHW-CC
		超重负荷 Overweight Load	DB-GHL-HA	DB-GHW-HA	DB-GHW-HB	DB-GHW-HC
GE	低型 Low Type	中负荷 Medium Load	DB-GEH-SA	DB-GEW-SA	DB-GEW-SB	-
		重负荷 Heavy Duty	DB-GEH-CA	DB-GEW-CA	DB-GEW-CB	-

DB-GH 系列
DB-GH Series

重负荷型滚珠线性滑轨
Heavy Load Ball Bearing Linear Slide Rail

2-1 DB-GH 系列 ---- 重负荷型滚珠线性滑轨
DB-GH Series ---- Heavy Load Ball Bearing Linear Slide Rail

DB-GH 系列线性滑轨，为四列式单圆弧牙型接触线性滑轨，同时整合最佳化结构设计的超重负荷精密线性滑轨，相较于其他的线性滑轨提升了负荷与刚性能力；具备四方向等负载特色、及自动调心的功能，可吸收安装面的装配误差，得到高精度的需求。高速度、高负荷、高刚性与高精度化概念已成为未来全世界工业产品发展的趋势，四列式超重负荷线性滑轨，即为基于此理念开发的产品。

DB-GH series linear slide rail is a four row single circular arc tooth contact linear slide rail. Meanwhile, it integrates optimized structure design of precision linear slide with heavy load, which improves load and rigidity ability compared with other linear slide. With four direction and other load features, and automatic aligning function, can absorb the mounting surface assembly error, get high precision requirements. The concept of high speed, high load, high rigidity and high precision has become the development trend of industrial products all over the world in the future. The four-row linear slide with heavy load is the product developed based on this concept.

2-1-1 DB-GH 系列线性滑轨特点
DB-GH Series Linear Slide Features

(1) 自动调心能力
Automatic Aligning Ability

来自圆弧沟槽的 DF(45°-45°) 组合，在安装的时候，藉由钢珠的弹性变形及接触点的转移，即使安装面多少有些偏差，也能被线轨滑块内部吸收，产生自动调心能力的效果而得到高精度稳定的平滑运动。

The DF (45 °-45 °) combination from the arc rough groove can be absorbed by the internal sliding block of the track even if the installation surface has some deviation due to the elastic deformation of the steel ball and the transfer of the contact point during installation, resulting in an automatic centering ability and high-precision stable smooth motion.

(2) 具有互换性
It Is Interchangeable

由于对生产制造精度严格管控，线性滑轨尺寸能维持在一定的水平内，且滑块有保持器的设计以防止钢珠脱落，因此部份系列精度具可互换性，客户可依需要订购滑轨或滑块，亦可分开储存滑轨及滑块，以减少储存空间。

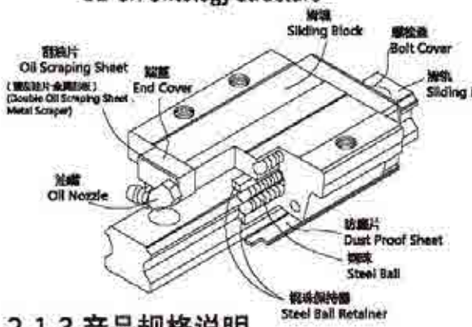
Due to the strict control of manufacturing accuracy, the linear slide size can be maintained in a certain level, and the slide block has a retainer design to prevent the steel ball from falling off, so some series of precision is interchangeable, customers can order the slide or slide block according to the need, and can also store the slide and slide block separately to reduce storage space.

(3) 所有方向皆具有高刚性
High Rigidity In All Directions

运用四列式圆弧沟槽，配合四列钢珠等 45°的接触角度，让钢珠达到理想的两点接触构造，能承受来自上下和左右方向的负荷；在必要时更可施加预压以提高刚性。

The use of four rows of circular grooves, with four rows of steel balls such as 45° contact Angle, so that the steel ball to achieve the ideal two-point contact structure, can withstand the load from up and down and left and right directions; If necessary, preloading can be applied to improve rigidity.

2-1-2 DB-GH 本体结构
DB-GH Ontology Structure



- **滚动循环系统：滑块、滑轨、端盖、钢珠、钢珠保持器**
  Rolling circulation system: sliding block, sliding rail, and cover, steel ball, steel ball retainer
- **润滑系统：油嘴、油管接头**
  Lubrication system: oil nozzle, tubing joint
- **防尘系统：刮油片、底片尘封防尘片、滑轨螺栓盖、金属刮板**
  Dust proof system: oil scraping sheet, film dust sealing dust proof sheet, slide bolt cover, metal scraper

2-1-3 产品规格说明
Product Specification

DB-GH 系列分为非互换性及互换性型两种线性滑轨，两者规格尺寸相同，主要差异点在于互换性型的滑块、滑轨可单出互换使用，较便利，但其组合精度无法达到非互换性型的超高精度，不过由于在制造上有良好的尺寸控制及严格的品质要求，互换性型的组合精度目前已达到一定的水平，对不需配对安装线性滑轨的客户而言，是一项很好的选择。线性滑轨的产品规格型号主要标明线性滑轨尺寸、型式、精度等级、预压等规格要求，以利订货时双方对产品的确认。

DB-GH series is divided into two types of non-interchangeable and interchangeable linear slide rails, with alternating sizes. The main difference lies in that the interchangeable slider and slide rails can be used interchangeably, which is more convenient. However, its combined accuracy cannot reach the ultra-high precision of non-interchangeable type. However, due to good size control and strict quality requirements in manufacturing, the combined accuracy of interchangeable type has reached a certain level at present, which is a good choice for customers who do not need to install linear slides paired. The product specifications and models of linear slide rails mainly indicate the size, type, precision grade, preloading and other specifications requirements of linear slide rails, so as to facilitate the confirmation of products by both parties when ordering.

(1) 非互换性线性滑轨产品型号
Non - Interchangeable Linear Slide Product Models

DB-GH W 25 C A E 2 R 1600 E ZA P II + DD/E2/RC

- DB-GH 系列 DB-GH Series
- 滑块型式 Sliding Block Type
  - W：法兰型 W:Flange Type
  - H：四方型 H:Square Type
  - L：四方型(低)[1] L:Square Type(Low)
- 尺寸: Dimensions
  15, 20, 25, 30, 35, 45, 55, 65
- 负荷型式 Load Type
  - C：重负荷 C:Heavy Duty
  - H：超重负荷 H:Overweight Load
- 滑块固定方式 Sliding Block Fixing Method
  - A：上锁式 A:Upward Locking Type
  - B：下锁式 B:Downward Locking Type
  - C：上、下锁式 C:Upward And Downward Locking Type
- E: 滑块特殊加工 E:Special Processing Of Sliders
- 无记号：滑块无特殊加工 No Mark: The Slider Has No Special Processing
- 单支滑轨组装的滑块数 Number Of Sliding Blocks In A Single Rail Assembly
- 单轴滑轨数[1] Number Of Single Shaft Slides
- 精度：C, H, P, SP, UP Accuracy
- 预压：Z0, ZA, ZB Precompression
- 滑轨长度(mm) Slide Length(mm)
- 滑轨固定方式 Sliding Rail Fixing Method
  - R：上锁式 R:Upward Locking Type
  - T：下锁式 T: Downward Locking Type
- 防尘配备[2] Dustproof Equipment
  - E2：自润式 E2:Self Lubrication Type
  - SE：金属端盖式 SE:Metal End Cap Type
- RC: 强化型螺栓盖 RC:Reinforced Bolt Cover

注：1. 单轴滑轨数若只使用一支滑轨则不写，两支标记为 II，三支标记为 III，以此类推。
Note: 1. If only one slide of single axis is used, it will not be written down. Two slides will be marked as II, three slides will be considered as III, and so on

2. 防尘配备中无记号为防尘标准配备刮油片加防尘片。
2. There is no mark in the dust proof equipment is the standard equipment of dust proof scraping plate and dust proof plate.

ZZ 为刮油片加防尘片加金属刮板。
ZZ is an oil scraper plus an anti - wide plate plus a metal scraper.

KK 为双刮油片加防尘片加金属刮板。
KK is double scraping oil plate plus dust plate plus metal scraping plate.

DD 为双刮油片加防尘片。
DD is double oil scraper and dust proof plate.

3. 滑块型式 L 为四方形 H 的低组装式滑块，其组合高度与同尺寸的法兰型一致。
3.The slider type L is a low assembly slider of boxy H, whose combined height is constant with the flange type of the same size

(2) 互换性线性滑轨产品型号
Models Of Interchangeable Linear Slide Rail Products

○ 互换型滑块产品型号
Interchangeable Slider Product Model

DB-GH W 25 C A E ZA P + ZZ/E2

- DB-GH 系列 DB-GH Series
- 滑块型式 Sliding Block Type
  - W：法兰型 W:Flange Type
  - H：四方型 H:Square Type
  - L：四方型(低)[1] L:Square Type(Low)
- 尺寸: Dimensions
  15, 20, 25, 30, 35, 45, 55, 65
- 负荷型式 Load Type
  - C：重负荷 C:Heavy Duty
  - H：超重负荷 H:Overweight Load
- 精度：C, H, P, SP, UP Accuracy
- 预压：Z0, ZA, ZB Precompression
- E: 滑块特殊加工 E:Special Processing Of Sliders
- 无记号：滑块无特殊加工 No Mark: The Slider Has No Special Processing
- 滑块固定方式 Sliding Block Fixing Method
  - A：上锁式 A:Upward Locking Type
  - B：下锁式 B:Downward Locking Type
  - C：上或下锁式 C:Upward Or Downward Locking Type
- 防尘配备[2] Dustproof Equipment
  - E2：自润式 E2:Self Lubrication Type
  - SE：金属端盖式 SE:Metal End Cap Type

○ 互换型滑轨产品型号
Interchangeable Slide Product Model

DB-GH R 25 R 1200 E P + RC

- DB-GH 系列 DB-GH Series
- 单出滑轨 Single Out Slide Rail
- 尺寸: Dimensions
  15, 20, 25, 30, 35, 45, 55, 65
- 滑轨固定方式 Sliding Rail Fixing Method
  - R：上锁式 R:Upward Locking Type
  - T：下锁式 T: Downward Locking Type
- 滑轨长度(mm) Slide Length(mm)
- 精度：C, H, P Accuracy
- E: 滑轨特殊加工 E:Special Processing Of Slide Rails
- 无记号：滑轨无特殊加工 No Mark: The Slide Rail Has No Special Processing
- RC: 强化型螺栓盖 RC:Reinforced Bolt Cover

DB-GH 系列

DB-GH Series

重负荷型滚珠线性滑轨

Heavy Load Ball Bearing Linear Slide Rail

2-1-4 DB-GH 系列型式

DB-GH Series Type

(1) 滑块型式

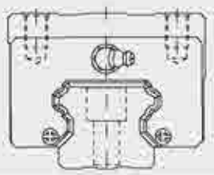
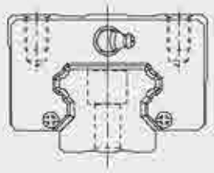
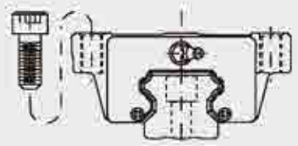
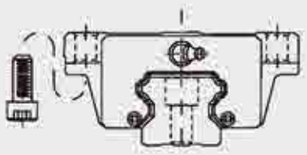
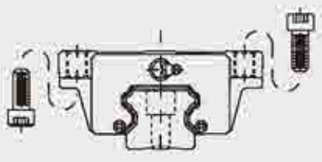
SLIDER TYPE

提供法兰型及四方型两种线性滑轨，四方型线性滑轨分 H 型与 L 型，L 型为 H 型的低组装式线性滑轨，其组合高度与法兰型线性滑轨一致。

It provides flange type and square type linear slide rail. Square type linear slide rail can be divided into H type and L type. L type is a low assembly type linear slide rail of H type, and its combined height is consistent with flange type linear slide rail.

滑块型式

Slider Type

型式 Type	规格 Specifications	形状 Shape	高度尺寸 Height Dimension (mm)	滑轨长度 Slide Length (mm)	应用设备 Application equipment
四方型 Square Type	DB-GHH-CA DB-GHH-HA		28 ↓ 90	100 ↓ 4000	○机械加工中心 Machining center ○工具机 Tool machine ○精密加工机 Precision machining machine ○重型切削机床 Heavy cutting machine ○大理石切割机 Marble cutting machine ○磨床 Grinding machine ○注塑机 Injection molding machine ○冲床 Punch press ○自动化装置 Automatic device ○运输设备 Transport equipment ○测量仪器 Measuring instrument
	DB-GHL-CA DB-GHL-HA		24 ↓ 70	100 ↓ 4000	
法兰型 Flange Type	DB-GHW-CA DB-GHW-HA		24 ↓ 90	100 ↓ 4000	
	DB-GHW-CB DB-GHW-HB		24 ↓ 90	100 ↓ 4000	
	DB-GHW-CC DB-GHW-HC		24 ↓ 90	100 ↓ 4000	

(2) 滑轨型式

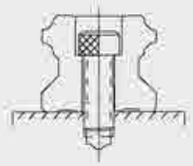
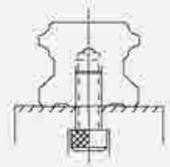
Slide Rail Type

除了一般上锁式螺栓孔滑轨外，也提供下锁式螺丝孔滑轨，方便客户安装使用

In addition to the general locking bolt hole slide rail, we also provide lower locking screw hole slide rail for easy installation and use by customers

滑轨型式

SLIDING RAIL TYPE

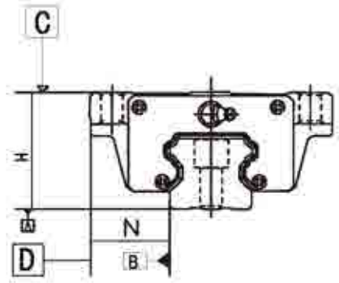
上锁式螺栓孔 Locking Bolt Hole	下锁式螺栓孔 Lower Lock Bolt Hole
	

2-1-5 精度等级

2-1-5 Precision Class

DB-GH 系列线性滑轨的精度，分为普通、高、精密、超精密、超高精密级共五级客户可依式备精度需求选用精度。

The precision of DB-GH series linear slide rails is divided into five levels: ordinary, high, precision, ultra precision, and ultra high precision. Customers can choose the precision according to their precision requirements.



(1) 非互换性线性滑轨精度

Non-Interchangeable Linear Slide Accuracy

组合件精度表

PRECISION TABLE OF ASSEMBLIES

单位: mm

Unit:mm

型号 Model	DB-GH 15 20				
精度等级 Accuracy Class	普通级 Ordinary Level (C)	高级 Advanced Level (H)	精密级 Precision Level (P)	超精密级 Ultra Precision Level (SP)	超高精密级 Ultra High Precision Level (UP)
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H	±0.1	±0.03	0 -0.03	0 -0.015	0 -0.008
高度 N 的容许尺寸误差 Permissible Dimensional Error Of Height N	±0.1	±0.03	0 -0.03	0 -0.015	0 -0.008
成对高度 H 的相互误差 Mutual Error Of Paired Height H	0.02	0.01	0.006	0.004	0.003
成对高度 N 的相互误差 Mutual Error Of Paired Height N	0.02	0.01	0.006	0.004	0.003
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking	行走平行度（见表格 2-1-11）Walking Parallelism(Refer to Table 2-1-11)				
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking	行走平行度（见表格 2-1-11）Walking Parallelism(Refer to Table 2-1-11)				

组合件精度表

PRECISION TABLE OF ASSEMBLIES

单位: mm

Unit:mm

型号 Model	DB-GH 25 30 35				
精度等级 Accuracy Class	普通级 Ordinary Level (C)	高级 Advanced Level (H)	精密级 Precision Level (P)	超精密级 Ultra Precision Level (SP)	超高精密级 Ultra High Precision Level (UP)
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H	±0.1	±0.04	0 -0.04	0 -0.02	0 -0.001
高度 N 的容许尺寸误差 Permissible Dimensional Error Of Height N	±0.1	±0.04	0 -0.04	0 -0.02	0 -0.001
成对高度 H 的相互误差 Mutual Error Of Paired Height H	0.02	0.015	0.007	0.005	0.003
成对高度 N 的相互误差 Mutual Error Of Paired Height N	0.03	0.015	0.007	0.005	0.003
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking	行走平行度（见表格 2-1-11）Walking Parallelism(Refer to Table 2-1-11)				
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking	行走平行度（见表格 2-1-11）Walking Parallelism(Refer to Table 2-1-11)				

DB-GH 系列
DB-GH Series
重负荷型滚珠线性滑轨
Heavy Load Ball Bearing Linear Slide Rail

单出件精度表
SINGLE DELIVERY PRECISION TABLE

单位: mm
Unit:mm

型号 Model	DB GH-45.55		
精度等级 Accuracy Class	普通级 Ordinary Level (C)	高级 Advanced Level (H)	精密级 Precision Level (P)
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H	±0.1	±0.05	±0.025
高度 N 的容许尺寸误差 Permissible Dimensional Error Of Height N	±0.1	±0.05	±0.025
成对高度 H 的相互误差 Mutual Error Of Paired Height H	0.03	0.015	0.007
成对高度 N 的相互误差 Mutual Error Of Paired Height N	0.03	0.02	0.01
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking	行走平行度（见表格 2-1-11） Walking Parallelism(Refer to Table 2-1-11)		
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking	行走平行度（见表格 2-1-11） Walking Parallelism(Refer to Table 2-1-11)		

单出件精度表
RECISION TABLE OF SINGLE ITEMS

单位: mm
Unit:mm

型号 Model	DB-GH-45		
精度等级 Accuracy Class	普通级 Ordinary Level (C)	高级 Advanced Level (H)	精密级 Precision Level (P)
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H	±0.1	±0.07	±0.035
高度 N 的容许尺寸误差 Permissible Dimensional Error Of Height N	±0.1	±0.07	±0.035
成对高度 H 的相互误差 Mutual Error Of Paired Height H	0.03	0.02	0.01
成对高度 N 的相互误差 Mutual Error Of Paired Height N	0.03	0.025	0.015
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking	行走平行度（见表格 2-1-11） Walking Parallelism(Refer to Table 2-1-11)		
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking	行走平行度（见表格 2-1-11） Walking Parallelism(Refer to Table 2-1-11)		

(2) 行走平行度精度
Precision Of Walking Parallelism

行走平行度精度
PRECISION OF WALKING PARALLELISM

滑轨长度 Slide Length	精度等级 Accuracy Class				
	C	H	P	SP	UP
0~100	12	7	3	2	2
100-200	14	9	4	2	2
200~300	15	10	5	3	2
300~500	17	12	6	3	2
500~700	20	13	7	4	2
700~900	22	15	8	5	3
900~1100	24	16	9	6	3
1100~1500	26	18	11	7	4
1500~1900	28	20	13	8	4
1900-2500	31	22	15	10	5
2500~3100	33	25	18	11	6
3100~3600	36	27	20	14	7
3600~4000	37	28	21	15	7

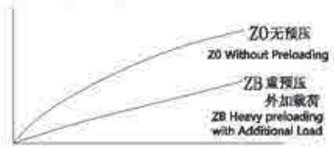
2-1-6 预压力
Pre Pressure

(1) 预压力定义
Pre-pressure Definition

预压力是预先给与钢珠负荷力，亦即加大钢珠直径，利用钢珠与滚道之间负向间隙给与预压，此举能提高线性滑轨的刚性及消除间隙；以右图来解释，提高预压力可增加线性滑轨刚性。但小规格建议选用轻预压以下预压，以避免因预压选用过重降低其使用寿命。

Pre-pressure is to give the steel ball load force in advance, that is, to increase the diameter of the steel ball, using the negative gap between the steel ball and the raceway to give pre-pressure, which can improve the rigidity of the linear slide rail and eliminate the gap; As explained in the figure on the right, increasing the pre-pressure can increase the rigidity of the linear slide. But for small specifications, it is recommended to choose light preloading below preloading, so as to avoid reducing its service life due to excessive preloading selection.

变形量
Deformation Amount



(2) 预压等级
Preloading Grade

DB-GH 系列线性滑轨提供三种标准预压，可依据用途选择适当预压力。
DB-GH series linear slide provides three standard preloading, which can be selected according to the application.

预压等级
Preloading Grade

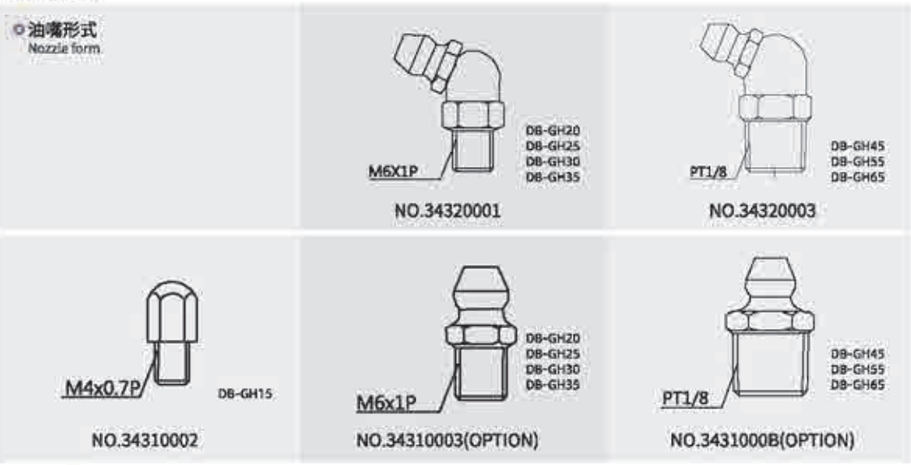
预压等级 Preloading Grade	符号 Symbol	预压力 Preload	使用条件 Conditions Of Use	适用范围 Scope Of Application
无预压 No Preloading	Z0	0-0.02C	负荷方向固定且冲击小，精度要求低 The load direction is fixed and the impact is small, with low accuracy requirements	搬送装置，自动包装机，自动化产业机械，一般工业机械的 XY 轴，焊接机，熔断机，工具交换装置 Conveyor, automatic packaging machine, automated industrial machinery, XY axis of general industrial machinery, welding machine, fuse machine, tool exchange device
轻预压 Light Preloading	ZA	0.05C-0.07C	轻负荷且要求高精度 Light load and high precision required	一般工业机械的 Z 轴，放电加工机，NC 车床，精密 XY 平台，测定器，机械加工中心，立式加工中心，工业用机器人，自动涂装机，各种通材料供给装置 Z-axis of general industrial machinery, discharge machining machines, NC lathes, precision XY platforms, measuring instruments, machining centers, vertical machining centers, industrial robots, automatic coating machines, and various high-speed material supply devices
中预压 Medium Preloading	ZB	0.10C-0.12C	刚性要求，且有振动，冲击的使用环境 Rigidity requirements, as well as vibration and impact environments for use	机械加工中心，磨床，NC 车床，立交或卧式铣床，机床的 Z 轴，重切削加工机 Mechanical machining center, grinder, NC lathe, overpass or horizontal milling machine, Z-axis of machine tool, heavy cutting machine

等级 Grade	互换性线轨（单出件） Interchangeable Track (single piece)	非互换性线轨（组合件） Non interchangeable Track (assembly)
预压等级 Preloading Grade	Z0,ZA	Z0,ZA,ZB

2-1-6 润滑方式
Lubrication Mode

(1) 润滑油脂
Lubricating Oil

油嘴形式
Nozzle form



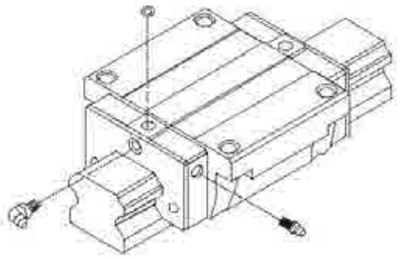
DB-GH 系列 DB-GH Series

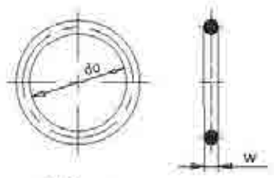
重负荷型滚珠线性滑轨
Heavy Load Ball Bearing Linear Slide Rail

○ 油嘴位置
○ Nozzle Position

依客户需要在滑块前端或后端装上油嘴以供手动打油，GH 系列特别在端盖侧边预留侧油孔位置安装油嘴（一般是直油嘴），提供侧向打油，侧向打油的位置建议在非侧基准边，但若有特殊需要亦可放在侧基准边。客户如有上述侧向打油需求请与我们联络。使用接管方式自动供润滑油脂的线性滑轨，则可依连接管型式选用安装油管接头。

As required by customers, oil nozzles are installed on the front or back end of the slide block for manual oil pumping. GH series is specially equipped with oil nozzles (usually straight oil nozzles) at the reserved side oil holes on the side of the end cover to provide side oil pumping. The side oil pumping position is recommended to be on the non-side base edge, but if there is special need, it can be placed on the side base edge. If customers have the above side oil needs please contact us. The linear slide rail used for lubricating grease automatically can be installed according to the type of connecting pipe.

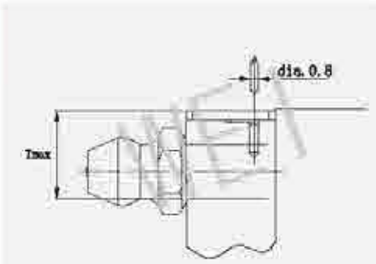




O Ring

规格与穿孔最大容许深度
Specifications And Maximum Allowable Piercing Depth

规格 Specifications	O-Ring 规格 O-Ring Specifications do(mm)	W(mm)	穿孔最大容许深度 T_{max}(mm) Maximum Allowable Depth Of Perforation
DB-GH15	2.5±0.15	1.5±0.15	3.75
DB-GH20	4.5±0.15	1.5±0.15	5.7
DB-GH25	4.5±0.15	1.5±0.15	5.8
DB-GH30	4.5±0.15	1.5±0.15	6.3
dB-GH35	4.5±0.15	1.5±0.15	8.8
DB-GH45	4.5±0.15	1.5±0.15	8.2
dB-GH55	4.5±0.15	1.5±0.15	11.8
DB-GH65	4.5±0.15	1.5±0.15	10.8



○ 单个滑块填满润滑油脂油量
○ Single Slider Filled With Lubricating Fat Amount

单个滑块润滑油脂油量
Lubricating Oil Amount Of A Single Slider

规格 Specifications	重负荷 (cm³) Heavy Duty	超重负荷 (cm³) Overweight Load	规格 Specifications	重负荷 (cm³) Heavy Duty	超重负荷 (cm³) Overweight Load
DB-GH15	1	-	GH35	10	12
DB-GH20	2	3	GH45	17	21
DB-GH25	5	6	GH55	26	33
DB-GH30	7	8	GH65	50	61

○ 润滑频率
○ Lubrication Frequency

每运行 100km, 或每 3-6 个月确认一次油脂。
Check grease every 100km, or every 3-6 months.

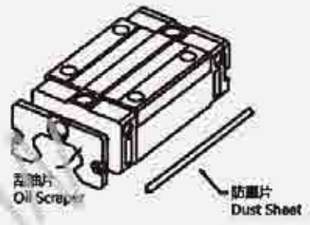
○ 供油速率
○ Fuel Supply Rate

规格 Specifications	供油速率 (cm³/hr) Fuel Supply Rate	规格 Specifications	供油速率 (cm³/hr) Fuel Supply Rate
DB-GH15	0.2	GH35	0.3
DB-GH20	0.2	GH45	0.4
DB-GH25	0.3	GH55	0.5
DB-GH30	0.3	GH65	0.6

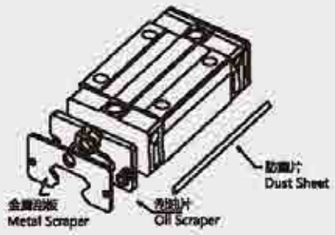
2-1-8 防尘配备
Dust Proof Equipment

(1) 标准防尘配备代码
Standard Dust Proof Equipment Code

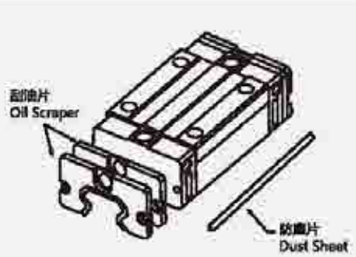
一般无特别需求的作业环境下使用，若有下列防尘配件需求时，请于产品型号后面加注代码。
Generally, it is used in the operating environment without special requirements. If the following dust proof accessories are required, please add the code behind the product model.



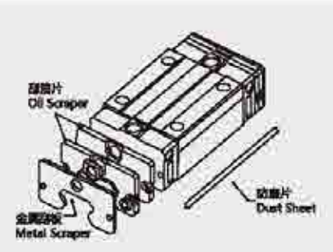
无记号为标准防尘配备（刮油片 + 防尘片）
Standard dust proof equipment without mark (oil scraper + dust sheet)



ZZ（刮油片 + 金属刮板 + 防尘片）
ZZ(Oil scraper + metal scraper + dust sheet)



DD（双刮油片 + 防尘片）
DD(Double oil scraper + dust sheet)



KK（双刮油片 + 金属刮板 + 防尘片）
KK(Double oil scraper + metal scraper + dust sheet)

各防尘代码及滑块总长
Each Dust Code And Total Length Of The Slider

规格 Specifications	标准 Standard	ZZ	DD	KK
DB-GH15C	60.5	64.1	65.5	69.1
DB-GH20C	76.7	80.3	82.5	86.1
DB-GH20H	91.4	95	97.2	100.8
DB-GH25C	84	87.6	90	93.6
DB-GH25H	104.6	108.2	110.6	114.2
DB-GH30C	98.4	102	104.6	108.2
DB-GH30H	121.4	125	127.6	131.2
DB-GH35C	112.4	116	118.8	122.4
DB-GH35H	138.2	141.8	144.6	148.2
DB-GH45C	137.4	141	145.4	149
DB-GH45H	169.2	172.8	177.2	180.8

DB-GH 系列 DB-GH Series

重负荷型滚珠线性滑轨
Heavy Load Ball Bearing Linear Slide Rail

(2) 防尘配备说明
Dust Proof Instruction

○ 刮油片及底部防尘片
○ Scraping Sheet And Bottom Dust Sheet

阻止加工铁屑或尘粒进入滑块里面，破坏球道表面而降低线性滑轨寿命。
Prevent machining iron chips or dust particles from entering the slider, damaging the surface of the lane and reducing the life of the linear slide.

○ 双层刮油片
○ Double Oil Scraper

加倍刮屑效果，即使在重切削加工环境中，异物完全被排除于滑块外。
Double the chip scraping effect, even in heavy cutting environment, foreign matter is completely excluded from the slide.

刮油片厚度
THICKNESS OF OIL SCRAPER

规格 Specifications	增加厚度 (t1) Increase Thickness (mm)	规格 Specifications	增加厚度 (t1) Increase Thickness (mm)
DB-GH 15 ES	3	DB-GH 35 ES	3.2
DB-GH 20 ES	3.5	DB-GH 45 ES	4.5
DB-GH 25 ES	3.5	DB-GH 55 ES	4.5
DB-GH 30 ES	3.2	DB-GH 65 ES	6

○ 金属刮板
○ Metal Scraper

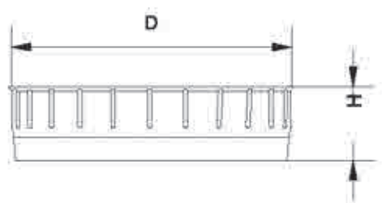
可隔离高温铁屑或加工火花，並排除大体积杂质。
Can isolate high temperature iron chips or machining sparks, and eliminate large volume impurities.

金属刮板厚度
THICKNESS OF METAL SCRAPER

规格 Specifications	增加厚度 (t2) Increase Thickness (mm)	规格 Specifications	增加厚度 (t2) Increase Thickness (mm)
DB-GH 15 SC	1.5	DB-GH 35 SC	1.5
DB-GH 20 SC	1.5	DB-GH 45 SC	1.5
DB-GH 25 SC	1.5	DB-GH 55 SC	1.5
DB-GH 30 SC	1.5	DB-GH 65 SC	1.5

○ 上防尘片
○ Dust Proof Plate

可有效防止粉尘从滑轨上表面或螺栓孔处进入滑块内部。
It can effectively prevent dust from the upper surface of the slide rail or bolt hole into the inside of the slide block.



○ 滑轨螺栓盖
○ Slide Bolt Cover

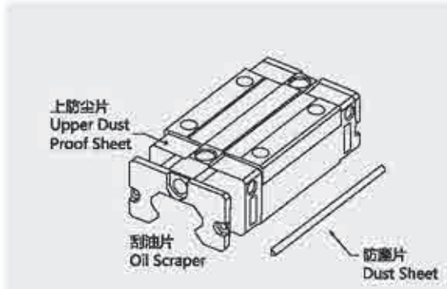
为防止切削粉末或异物经由螺栓孔侵入滑块内部影响精度，客户必须在安装滑轨时将螺栓盖打入螺诠孔内，每支滑轨出厂时皆配有螺栓盖。
In order to prevent cutting powder or foreign matter from invading the inside of the slide block through the bolt hole and affecting the accuracy, the customer must drive the bolt cover into the screw shape hole when installing the slide rail. Each slide rail is equipped with bolt cover when leaving the factory.

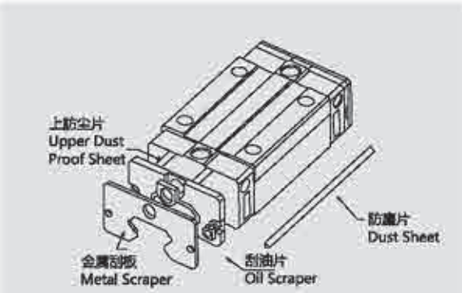
滑轨螺栓盖
SLIDE BOLT COVER

滑轨规格 Slide Rail Specifications	安装螺丝 Mounting Screw	直径 (D) Diameter (D) (mm)	厚度 (H) Thickness (H) (mm)	滑轨规格 Slide Rail Specifications	安装螺丝 Mounting Screw	直径 (D) Diameter (D) (mm)	厚度 (H) Thickness (H) (mm)
DB-GHR15	M4	7.65	1.1	DB-GHR35	M8	14.25	3.3
DB-GHR20	M5	9.65	2.2	DB-GHR45	M12	20.25	4.6
DB-GHR25	M6	11.20	2.5	DB-GHR55	M14	23.50	5.5
DB-GHR30	M8	14.25	3.3	DB-GHR65	M16	26.60	5.5

(3) 高防尘配备代码
High Dust Proof Equipment Code

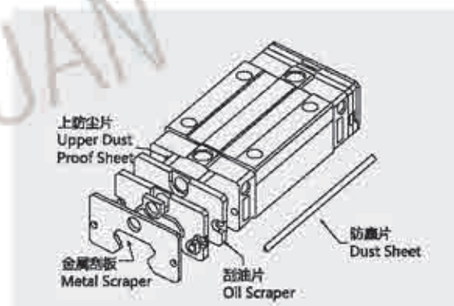
针对较一般环境严苛的作业环境，开发强化高防尘功能的防尘配件，若有下列高防尘配件需求时，请于产品型号后面加注代码。
Develop dust proof accessories with enhanced high dust proof function for the harsh working environment. If the following high dust proof accessories are required, please add the code behind the product model.

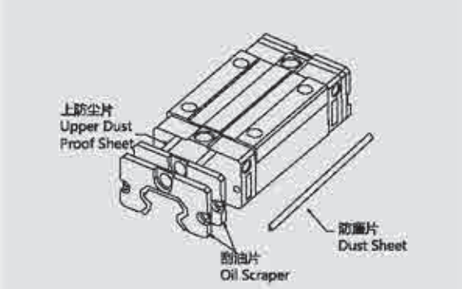




SH(刮油片 (高防尘)+ 防尘片 (高防尘)+ 上防尘片)
SH(scraping sheet (high dust proof)+ dust proof sheet (high dust proof)+ upper dust proof sheet)

ZH(刮油片 (高防尘)+ 防尘片 (高防尘)+ 上防尘片 + 金属刮板)
ZH(Oil scraping sheet (high dust proof)+ dust proof sheet (high dust proof)+ upper dust proof sheet + metal scraping plate)





KH(双刮油片 (高防尘)+ 防尘片 (高防尘)+ 上防尘片 + 金属刮板)
KH(Double scraping oil sheet (high dust)+ dust sheet (high dust)+ upper dust sheet + metal scraping plate)

DH(双刮油片 (高防尘)+ 防尘片 (高防尘)+ 上防尘片)
DH(Double oil scraping sheet (high dust proof)+ dust proof sheet (high dust proof)+ upper dust proof sheet)

注：1、目前高防尘配件可选用的规格有 DB-GH20 (C/H)、25(C/H)、30(C/H)、35(C/H) 及 45C
2、阻力值约比一般件增加 0.6~1.2kgf.
3、若客户有更高防尘功能需求时，请与威远公司联络。

Notes: 1、At present, the optional specifications of high dust proof accessories are DB-GH20 (C/H), 25(C/H), 30(C/H), 35(C/H) and 45C
2、The resistance value is about 0.6~1.2kgf higher than that of ordinary parts
3、If customers have higher dust proof function requirements, please contact Weiyuan Company

(4) 上防尘片
Upper Dust Proof Sheet

可有效防止粉尘从滑轨上表面或螺栓孔处进入滑块内部。
It can effectively prevent dust from the upper surface of the slide rail or bolt hole into the inside of the slide block.

DB-GH 系列
DB-GH Series

重负荷型滚珠线性滑轨
Heavy Load Ball Bearing Linear Slide Rail

2-1-9 摩擦力
Friction Force

此阻力值为单片刮油片的最大阻力。

This resistance value is the maximum resistance of a single oil scraper

DB-GH 系列刮油片阻力

DB-GH SERIES OIL SCRAPER RESISTANCE

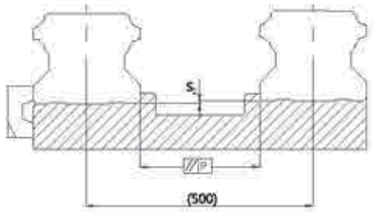
规格 Specifications	刮油片阻力 N(kgf) Oil Scraper Resistance N(kgf)	规格 Specifications	刮油片阻力 N(kgf) Oil Scraper Resistance N(kgf)
DB-GH15	1(0.1)	DB-GH35	3(0.31)
DB-GH20	1.7(0.1)	DB-GH45	4(0.41)
DB-GH25	2(0.2)	DB-GH55	5(0.51)
DB-GH30	2.6(0.27)	DB-GH65	6(0.61)

注：1kgf=9.81N

2-1-10 安装平面误差
2-1-10 Installation Plane Error

DB-GH 系列为圆弧两点接触式线性滑轨，其自动调心的特性可以吸收安装面的些许误差而不影响直线运动的顺畅性；下表中证明了安装平面的容许误差值：

DB-GH series is circular two-point contact linear slide rail, its automatic aligning characteristics can absorb some errors of the mounting surface without affecting the smoothness of linear motion; The following table demonstrates the allowable error values of the mounting plane:



容许平行度误差 (P)

ALLOWABLE PARALLELISM ERROR (P)

单位：μm Unit

规格 Specifications	预压 Precompression		
	Z0 预压 Z0 Precompression	ZA 预压 ZA Precompression	ZB 预压 ZB Precompression
DB-GH15	25	18	13
DB-GH20	25	20	18
DB-GH25	30	22	20
DB-GH30	40	30	27
DB-GH35	50	35	30
DB-GH45	60	40	35
DB-GH55	70	50	45
DB-GH65	80	60	55

容许上下水平度误差 (S1)

ALLOWABLE LEVELNESS ERROR (S1)

单位：μm Unit

规格 Specifications	预压 Precompression		
	Z0 预压 Z0 Precompression	ZA 预压 ZA Precompression	ZB 预压 ZB Precompression
DB-GH15	130	85	35
DB-GH20	130	85	50
DB-GH25	130	85	70
DB-GH30	170	110	90
DB-GH35	210	150	120
DB-GH45	250	170	140
DB-GH55	300	210	170
DB-GH65	350	250	200

注：容许值与轴间距成比例

Note: Allowable values are proportional to axial spacing

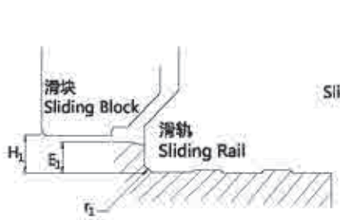
2-1-11 安装注意事项
Installation Precautions

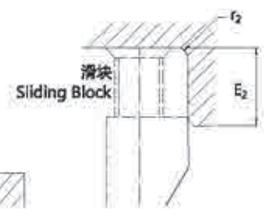
(1) 安装面肩部高度及倒角

Mounting Surface Shoulder Height And Chamfer

安装线性滑轨时必须注意安装面肩部的状况是否适当，如倒角过大，凸出的地方易造成线性滑轨精度不良，而高度过高则会干涉滑块。故如果能依照建议要求安装面肩部，安装精度不良即可排除。

When installing linear slide rail, we must pay attention to whether the condition of the shoulder of the installation surface is appropriate. If the chamfer is too large, the protruding place is easy to cause poor accuracy of the linear slide rail, and the height is too high, it will interfere with the slide block. Therefore, if the shoulder can be installed according to the recommended requirements, poor installation accuracy can be excluded.





肩部高度及倒角

SHOULDER HEIGHT AND CHAMFER

规格 Specifications	肩部高度及倒角 Shoulder Height And Chamfer				
	滑轨端最大 Maximum Sliding Rail End 圆角半径 Round Radius	滑块端最大 Maximum Slider End 圆角半径 Round Radius	滑轨端 Slide Rail End 高度高度 Shoulder Height	滑块端 Slider End 肩部高度 Shoulder Height	滑块的 Slider 运行净高 Operating Net Height
	r_1(mm)	r_2(mm)	E_1(mm)	E_2(mm)	H_1(mm)
DB-GH15	0.5	0.5	3.0	4.0	4.3
DB-GH20	0.5	0.5	3.5	5.0	4.6
DB-GH25	1.0	1.0	5.0	5.0	5.5
DB-GH30	1.0	1.0	5.0	5.0	6.0
DB-GH35	1.0	1.0	6.0	6.0	7.5
DB-GH45	1.0	1.0	8.0	8.0	9.5
DB-GH55	1.5	1.5	10.0	10.0	13.0
DB-GH65	1.5	1.5	10.0	10.0	15.0

(2) 滑轨装配螺丝的扭力值

Torque Value Of Mounting Screws Of Slide Rail

安装滑轨时是否锁紧贴平基准面影响线性滑轨精度甚剧，因此为达到每颗螺丝都能锁紧的目的，建议使用下列扭力值锁装配螺丝。

The accuracy of the linear slide is greatly affected by whether it is locked close to the datum plane when installing the slide rail. Therefore, in order to achieve the purpose of locking each screw, it is recommended to use the following torque value lock assembly screws.

扭力值

TORSION VALUE

规格 Specifications	螺丝规格 Screw Specification	扭力值 N-cm(kgf-cm) Torsion Value N-cm(kgf-cm)		
		铁件材质 Iron Material	铸件材质 Casting Material	铝合金材质 Aluminum Alloy Material
DB-GH15	M4x0.7Px16L	392(40)	274(28)	206(21)
DB-GH20	M5x0.8Px16L	883(90)	588(60)	441(45)
DB-GH25	M6x1Px20L	1373(140)	921(94)	686(70)
DB-GH30	M8x1.25Px25L	3041(310)	2010(205)	1470(150)
DB-GH35	M8x1.25Px25L	3041(310)	2010(205)	1470(150)
DB-GH45	M12x1.75Px35L	11772(1200)	7840(800)	5880(600)
DB-GH55	M14x2Px45L	15696(1600)	10500(1100)	7840(800)
DB-GH65	M16x2Px50L	19620(2000)	131001350	9800(1000)

WEIYUAN LINEAR GUIDE 直线导轨

DB-GH 系列

DB-GH Series

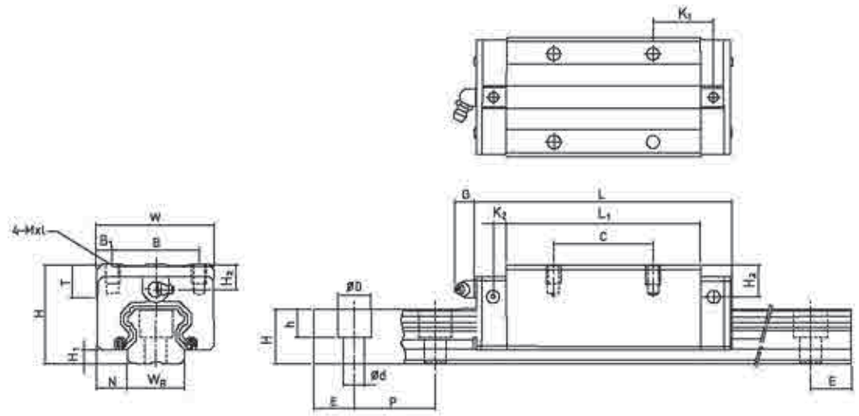
重负荷型滚珠线性滑轨

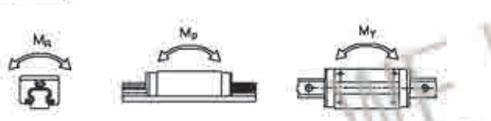
Heavy Load Ball Bearing Linear Slide Rail

2-1-13 DB-GH 系列线性滑轨尺寸表

Series Linear Slide Size Table

(1)DB-GHH-CA / DB-GHH-HA

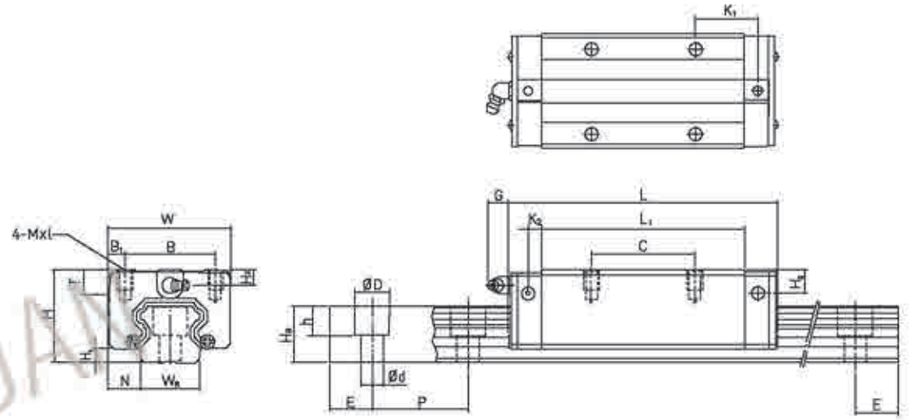


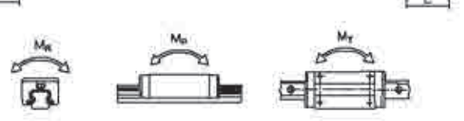


型号 Model	组件尺寸 (mm) Components Dimensions (mm)			滑轨尺寸 (mm) Slide Dimensions(mm)											滑轨尺寸 (mm) Sliding Rail Dimensions(mm)							滑轨的固定螺栓尺寸 Dimensions Of Fixing Bolts For Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H_1	N	W	B	B_1	C	L_1	L	K	K_2	G	MxL	T	H_2	H_3	W_1	H_1	D	h	d	E	P	(mm)	C (kN)	C_0 (kN)	M_R KN-m	M_P KN-m	M_Y KN-m	滑块 Slider kg	导轨 Sliding Rail kg/m
GHH 15CA	28	4.3	9.5	34	26	4	26	39.5	60.5	10	4.85	5.3	M4*5	6	7.95	7.7	15	15	7.5	5.3	4.5	60	20	M4*14	11.38	16.79	0.12	0.1	0.1	0.18	1.45
GHH 20CA	30	4.8	12	44	32	6	36	50.5	76.7	12.25	6	12	M5*6	8	6	6	20	17.5	9.5	8.5	6	60	20	M5*16	17.75	27.76	0.27	0.2	0.2	0.3	2.21
GHH 20HA							50	65.2	91.4	12.6															21.18	35.9	0.35	0.35	0.35	0.39	
GHH 25CA	40	5.5	102.5	48	35	6.5	35	58	84	15.7	6	12	M6*8	8	10	9	23	22	11	9	7	60	20	M6*20	26.48	36.49	0.42	0.33	0.33	0.51	3.21
GHH 25HA							50	78.6	104.6	18.5															32.75	49.44	0.55	0.57	0.57	0.69	
GHH 30CA	45	6	16	60	40	10	40	70	98.4	20.25	6	12	M8*10	8.5	9.5	13.8	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	0.88	4.47
GHH 30HA							60	93	121.4	21.75															47.27	69.16	0.88	0.92	0.92	1.16	
GHH 35CA	55	7.5	18	70	50	10	50	80	112.4	20.6	7	12	M8*12	10.3	16	19.6	34	29	14	12	9	80	20	M8*25	48.52	69.16	1.16	0.81	0.81	1.45	6.30
GHH 35HA							72	105.8	138.2	22.5															60.21	91.63	1.54	1.4	1.4	1.92	
GHH 45CA	70	9.5	20.5	86	60	13	60	97	137.4	23	10	12.9	M10*17	16	18.5	30.5	45	38	20	17	14	105	22.5	M12*35	77.57	102.71	1.98	1.55	1.55	2.73	10.41
GHH 45HA							80	128.8	169.2	28.9															94.54	136.46	2.63	2.68	2.68	3.61	
GHH 55CA	80	13	23.5	100	75	12.5	75	117.7	166.7	27.35	11	12.9	M12*8	17.5	22	29	53	44	23	20	16	120	30	M14*45	114.44	148.33	3.69	2.64	2.64	4.17	15.08
GHH 55HA							95	155.8	204.8	36.4															139.35	196.2	4.88	4.57	4.57	5.49	
GHH 65CA	90	15	31.5	126	76	25	70	144.2	200.2	43.1	14	12.9	M16*20	25	15	15	63	53	26	22	18	150	35	M16*50	163.63	215.33	6.65	4.27	4.27	7	21.18
GHH 65HA							120	203.6	259.6	47.8															208.36	303.13	9.38	7.38	7.38	9.82	

注 :1 kgf = 9.81N

(2)DB-GHL-CA / DB-GHL-HA





型号 Model	组件尺寸 (mm) Components Dimensions (mm)			滑轨尺寸 (mm) Slide Dimensions(mm)											滑轨尺寸 (mm) Sliding Rail Dimensions(mm)							滑轨的固定螺栓尺寸 Dimensions Of Fixing Bolts For Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H_1	N	W	B	B_1	C	L_1	L	K	K_2	G	MxL	T	H_2	H_3	W_1	H_1	D	h	d	E	P	(mm)	C (kN)	C_0 (kN)	M_R KN-m	M_P KN-m	M_Y KN-m	滑块 Slider kg	导轨 Sliding Rail kg/m
GHL 15CA	24	4.3	9.5	34	26	4	26	39.5	60.5	10	4.85	5.3	M4*4	6	3.95	3.7	15	15	7.5	5.3	4.5	60	20	M4*16	11.38	16.97	0.12	0.10	0.10	0.14	1.45
GHL 25CA	36	5.5	12.5	48	35	6.5	35	58	84	15.7	6	12	M6*6	8	6	5	23	22	11	9	7	60	20	M8*20	26.48	36.49	0.42	0.33	0.33	0.42	3.21
GHL 25HA							50	78.6	104.6	18.5															32.75	49.44	0.56	0.57	0.57	0.57	
GHL 30CA	42	6	16	60	40	10	40	70	98.4	20.25	6	12	M8*10	8.5	6.5	10.8	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	0.78	4.47
GHL 30HA							60	93	121.4	21.75															47.27	69.16	0.88	0.92	0.92	1.03	
GHL 35CA	48	7.5	18	70	50	10	50	80	112.4	20.6	7	12	M8*12	10.2	9	12.6	34	29	14	12	9	80	20	M8*25	49.52	69.16	1.16	0.81	0.81	1.14	6.3
GHL 35HA							72	105.8	138.2	22.5															60.21	91.63	1.54	1.40	1.40	1.52	
GHL 45CA	60	9.5	20.5	86	60	13	60	97	137.4	23	10	12.9	M10*17	16	8.5	20.5	45	38	20	17	14	105	22.5	M12*35	77.57	102.71	1.98	1.55	1.55	2.68	10.41
GHL 45HA							80	128.8	169.2	28.9															94.54	136.46	2.63	2.68	2.68	2.75	
GHL 55CA	70	13	23.5	100	75	12.5	75	117.7	166.7	27.35	11	12.9	M12*18	17.5	12	19	53	44	23	20	16	120	30	M14*45	114.44	148.33	3.69	2.64	2.64	3.25	15.08
GHL 55HA							95	155.8	204.8	36.4															139.35	196.	4.68	4.57	4.57	4.27	

注 :1 kgf = 9.81N

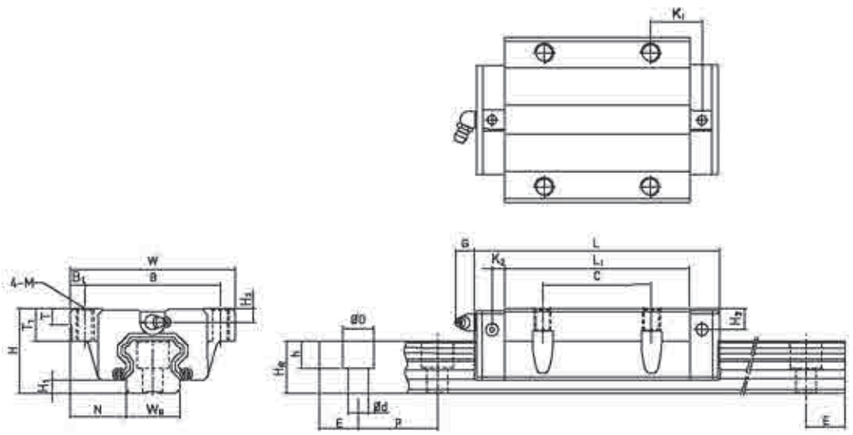
DB-GH 系列

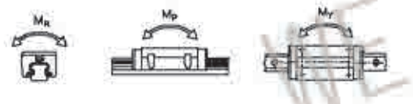
DB-GH Series

重负荷型滚珠线性滑轨

Heavy Load Ball Bearing Linear Slide Rail

(3)DB-GHW-CA 1 DB-GHW-HA

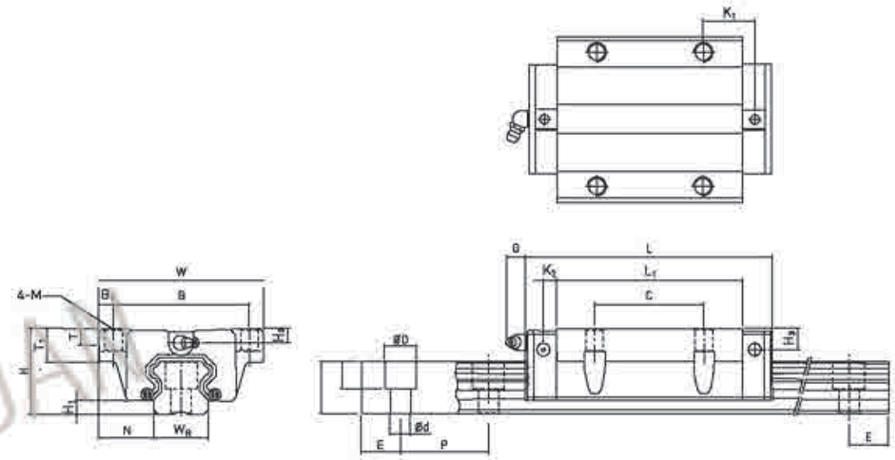


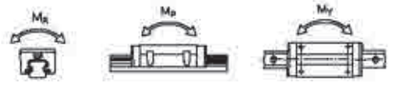


型号 Model	组件尺寸 (mm) Component Dimensions (mm)			滑块尺寸 (mm) Slide Dimensions(mm)													滑轨尺寸 (mm) Sliding Rail Dimensions(mm)							滑块固定螺孔尺寸 Dimensions of Fixing Bolts for Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H1	N	W	B	B1	C	L2	L	K1	K2	G	M	T	T1	T2	H1	H2	W1	H3	D	h	d	P	E		C (kN)	C0 (kN)	M0 kN-m	M0 kN-m	M0 kN-m	滑块 Slider kg	滑轨 Sliding rail kg/m
GHW 15CA	24	4.3	16	47	38	4.5	30	39.5	60.5	8	4.85	5.3	M5	6	8.9	3.95	3.7	15	15	7.5	5.3	4.5	60	20	M4*16	11.38	16.79	0.12	0.1	0.1	0.17	1.45
GHW 20CA	30	4.6	21.5	63	53	5	40	50.5	76.7	10.25	6	12	M6	8	10	6	6	20	17.5	9.5	8.5	6	60	20	M5*16	17.75	27.76	0.27	0.2	0.2	0.40	2.21
GHW 20HA								65.2	91.4	17.6																21.18	35.9	0.35	0.35	0.35	0.52	
GHW 25CA	36	5.5	23.5	70	57	6.5	45	58	84	10.7	6	12	M8	8	14	6	5	23	22	11	9	7	60	20	M6*20	26.48	36.49	0.42	0.33	0.33	0.59	3.21
GHW 25HA								78.6	104.8	21																32.75	49.44	0.56	0.57	0.57	0.80	
GHW 30CA	42	6	31	90	72	9	52	70	98.4	14.25	6	12	M10	8.5	16	6.5	10.8	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	1.09	4.47
GHW 30HA								93	121.4	25.75																47.27	69.16	0.88	0.92	0.92	1.44	
GHW 35CA	48	7.5	33	100	82	9	62	80	112.4	14.6	7	12	M10	10.2	18	9	12.6	34	29	14	12	9	80	20	M8*25	49.52	69.16	1.16	0.81	0.81	1.56	6.30
GHW 35HA								105.8	138.2	27.5																60.21	91.63	1.54	1.4	1.4	2.06	
GHW 45CA	60	9.5	37.5	120	100	10	80	97	137.4	13	10	12.9	M12	16	22	8.5	20.5	45	38	20	17	14	105	22.5	M12*35	77.57	102.71	1.98	1.55	1.55	2.79	10.41
GHW45HA								128.8	169.2	28.9																94.54	136.46	2.63	2.68	2.68	3.69	
GHW 55CA	70	13	43.5	140	116	12	95	117.7	166.7	17.35	11	12.9	M14	17.5	26.5	12	19	53	44	23	20	16	120	30	M14*45	114.44	148.33	3.69	2.64	2.64	4.52	15.08
GHW 55HA								155.8	204.8	36.4																139.35	196.2	4.88	4.57	4.57	5.96	
GHW 65CA	90	15	53.5	170	142	14	110	144.2	200.2	23.1	14	12.9	M16	25	37.5	15	15	63	53	26	22	18	150	35	M16*50	163.63	215.33	6.65	4.27	4.27	9.17	21.18
GHW 65HA								203.6	259.6	52.8																208.36	303.13	9.38	7.38	7.38	12.89	

注 :1 kgf = 9.81N

(4) DB-GHW-CB/DB-GHW-HB





型号 Model	组件尺寸 (mm) Component Dimensions (mm)			滑块尺寸 (mm) Slide Dimensions(mm)															滑轨尺寸 (mm)							滑块固定螺孔尺寸 Dimensions of Fixing Bolts for Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H1	N	W	B	B1	C	L2	L	K1	K2	G	M	T	T1	T2	H1	H2	W1	H3	D	h	d	P	E		C (kN)	C0 (kN)	M0 kN-m	M0 kN-m	M0 kN-m	滑块 Slider kg	滑轨 Sliding rail kg/m
GHW 15CB	24	4.3	16	47	38	4.5	30	39.5	60.5	8	4.85	5.3	Ø4.5	6	8.9	6.95	3.95	3.7	15	15	7.5	5.3	4.5	60	20	M4*16	11.38	16.79	0.12	0.1	0.1	0.17	1.45
GHW 20CB	30	4.6	21.5	63	53	5	40	50.5	76.7	10.25	6	12	Ø6	8	10	9.5	6	6	20	17.5	9.5	8.5	6	60	20	M5*16	17.75	27.76	0.27	0.2	0.2	0.40	2.21
GHW 20HB								65.2	91.4	17.6																21.18	35.9	0.35	0.35	0.35	0.52	
GHW 25CB	36	5.5	23.5	70	57	6.5	45	58	84	10.7	6	12	Ø7	8	14	10	6	5	23	22	11	9	7	60	20	M6*20	26.48	36.49	0.42	0.33	0.33	0.59	3.21
GHW 25HB								78.6	104.6	21																32.75	49.44	0.56	0.57	0.57	0.80	
GHW 30CB	42	6	31	90	72	9	52	70	98.4	14.25	6	12	Ø9	8.5	16	10	6.5	10.8	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	1.09	4.47
GHW 30HB								93	121.4	25.75																47.27	69.16	0.88	0.92	0.92	1.44	
GHW 35CB	48	7.5	33	100	82	9	62	80	112.4	14.6	7	12	Ø9	10.2	18	13	9	12.6	34	29	14	12	9	80	20	M8*25	49.52	69.16	1.16	0.81	0.81	1.56	6.30
GHW 35HB								105.8	138.2	27.5																60.21	91.63	1.54	1.4	1.4	2.06	
GHW 45CB	60	9.5	37.5	120	100	10	80	97	137.4	13	10	12.9	Ø11	16	22	15	8.5	20.5	45	38	20	17	14	105	22.5	M12*35	77.57	102.71	1.98	1.55	1.55	2.79	10.41
GHW45HB								128.8	169.2	28.9																94.54	136.46	2.63	2.68	2.68	3.69	
GHW 55CB	70	13	43.5	140	116	12	95	117.7	166.7	17.35	11	12.9	Ø14	17.5	26.5	17	12	19	53	44	23	20	16	120	30	M14*45	114.44	148.33	3.69	2.64	2.64	4.52	15.08
GHW 55HB								155.8	204.8	36.4																139.35	196.2	4.88	4.57	4.57	5.96	
GHW 65CB	90	15	53.5	170	142	14	110	144.2	200.2	23.1	14	12.9	Ø16	25	37.5	23	15	15	63	53	26	22	18	150	35	M16*50	163.63	215.33	6.65	4.27	4.27	9.17	21.18
GHW 65HB								203.6	259.6	52.8																208.36	303.13	9.38	7.38	7.38	12.89	

注 :1 kgf = 9.81N

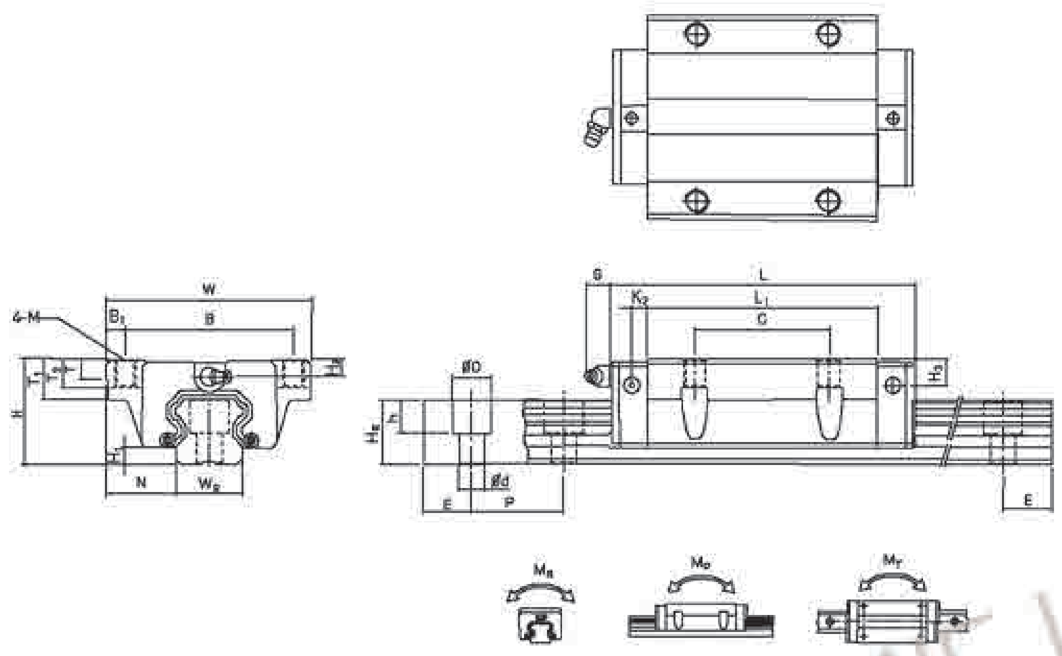
DB-GH 系列

DB-GH Series

重负荷型滚珠线性滑轨

Heavy Load Ball Bearing Linear Slide Rail

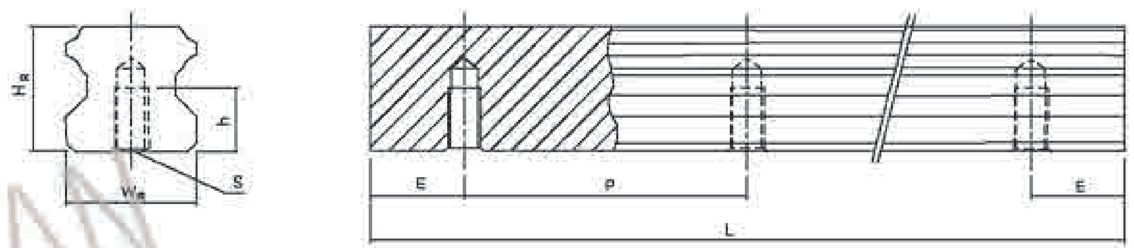
(5)DB-GHW-CC 1 DB-GHW-HC



型号 Model	组件尺寸(mm) Component Dimensions (mm)			滑块尺寸(mm) Slide Dimensions(mm)															滑轨尺寸(mm)							滑轨的固定螺栓尺寸 Dimensions Of Fixing Bolts For Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H_1	N	W	B	B_1	C	L_1	L	K_1	K_2	G	M	T	T_1	T_2	H_2	H_3	W_R	H_R	D	h	d	P	E	(mm)	C (kN)	C_0 (kN)	M_R KN-m	M_P KN-m	M_Y KN-m	滑块 Slider kg	滑轨 Sliding Rail kg/m
GHW 15CC	24	4.3	16	47	38	4.5	30	39.5	60.5	8	4.85	5.3	M5	6	8.9	6.95	3.95	3.7	15	15	7.5	5.3	4.5	60	20	M4*16	11.38	16.79	0.12	0.1	0.1	0.17	1.45
GHW 20CC	30	4.6	21.5	63	53	5	40	50.5	76.7	10.25	6	12	M6	8	10	9.5	6	6	20	17.5	9.5	8.5	6	60	20	M5*16	17.75	27.76	0.27	0.2	0.2	0.40	2.21
GHW 20HC								65.2	91.4	17.6																	21.18	35.9	0.35	0.35	0.35	0.52	
GHW 25CC	36	5.5	23.5	70	57	6.5	45	58	84	10.7	6	12	M8	8	14	10	6	5	23	22	11	9	7	60	20	M6*20	26.48	36.49	0.42	0.33	0.33	0.59	3.21
GHW 25HC								78.6	104.6	21																	32.75	49.44	0.56	0.57	0.57	0.80	
GHW 30CC	42	6	31	90	72	9	52	70	98.4	14.25	6	12	M10	8.5	16	10	6.5	10.8	28	26	14	12	9	80	20	M8*25	38.74	52.19	0.66	0.53	0.53	1.09	4.47
GHW 30HC								93	121.4	25.75																	47.27	69.16	0.88	0.92	0.92	1.44	
GHW 35CC	48	7.5	33	100	82	9	62	80	112.4	14.6	7	12	M10	10.2	18	13	9	12.6	34	29	14	12	9	80	20	M8*25	49.52	69.16	1.16	0.81	0.81	1.56	6.30
GHW 35HC								105.8	138.2	27.5																	60.21	91.63	1.54	1.4	1.4	2.06	
GHW 45CC	60	9.5	37.5	120	100	10	80	97	137.4	13	10	12.9	M12	16	22	15	8.5	20.5	45	38	20	17	14	105	22.5	M12*35	77.57	102.71	1.98	1.55	1.55	2.79	10.41
GHW45HC								128.8	169.2	28.9																	94.54	136.46	2.63	2.68	2.68	3.69	
GHW 55CC	70	13	43.5	140	116	12	95	117.7	166.7	17.35	11	12.9	M14	17.5	26.5	17	12	19	53	44	23	20	16	120	30	M14*45	114.44	148.33	3.69	2.64	2.64	4.52	15.08
GHW 55HC								155.8	204.8	36.4																	139.35	196.2	4.88	4.57	4.57	5.96	
GHW 65CC	90	15	53.5	170	142	14	110	144.2	200.2	23.1	14	12.9	M16	25	37.5	23	15	15	63	53	26	22	18	150	35	M16*50	163.63	215.33	6.65	4.27	4.27	9.17	21.18
GHW 65HC								203.6	259.6	52.8																	208.36	303.13	9.38	7.38	7.38	12.89	

(6)DB-GHR-T 下锁式滑轨尺寸表

DB-GHR-T Size Table Of Lock Slide



型号 Model	滑轨尺寸(mm) Sliding Rail Dimensions(mm)						重量 Weight
	WR	HR	S	h	P	E	(kg/m)
GHR15T	15	15	M5*0.8P	8	60	20	1.48
GHR20T	20	17.5	M6*1P	10	60	20	2.29
GHR25T	23	22	M6*1P	12	60	20	3.35
GHR30T	28	26	M8*1.25P	15	80	20	4.67
GHR35T	34	29	M8*1.25P	17	80	20	6.51
GHR45T	45	38	M12*1.75P	24	105	22.5	10.87
GHR55T	53	44	M14*2P	24	120	30	15.67
GHR65T	63	53	M20*2.5P	30	150	35	21.73

DB-GE 系列
DB-GE Series

低组装型滚珠线性滑轨
Low Assembly Ball Linear Slide

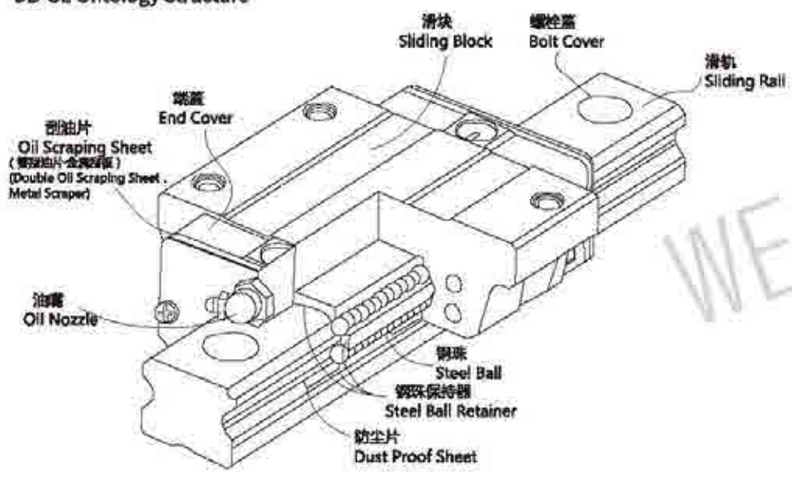
2-2 DB-GE 系列—低组装型滚珠线性滑轨
DB-GE Series---Low Assembly Ball Linear Slide

2-2-1 DB-GE 系列线性滑轨特点
DB-GE Series Linear Slide Features

DB-GE 系列使用四列钢珠承受负荷设计，便其具备高刚性、高负荷的特性，同时具备四方向等负载特色、及自动调心的功能，可吸收安装面的装配误差，得到高精度的诉求；加上降低组合高度及缩短滑块长度，非常适合高速自动化产业机械及空间要求的小型设备使用。滑块上设有钢珠保持器以防止钢珠脱落，此设计不仅方便客户安装线性滑轨，当取下滑块时亦不会有钢珠脱落的情况发生，且在精度允许下具备互换性。

DB-GE series uses four columns of steel balls to bear the load design, so that it has the characteristics of high rigidity and high load, at the same time has the load characteristics of four directions, and automatic aligning function, can absorb the mounting surface assembly error, get the high precision demand; In addition to reduce the combination height and shorten the length of the slider, very suitable for high-speed automation industry machinery and space requirements of small equipment use. The slide block is provided with a steel ball retainer to prevent the steel ball from falling off. This design is not only convenient for customers to install the linear slide rail, but also will not have the steel ball falling off when taking the slide block, and has the interchangeability under the accuracy.

2-2-2 DB-GE 本体结构
DB-GE Ontology Structure



- **滚动循环系统：滑块、滑轨、端盖、钢珠、钢珠保持器。**
  Rolling circulation system: sliding block, sliding rail, end cover, steel ball, steel ball retainer.
- **润滑系统：油嘴、油管接头**
  Lubrication system: oil nozzle, tubing joint
- **防尘系统：刮油片、底面尘封防尘片、滑轨螺栓盖、金属刮板**
  Dust proof system: oil scraping sheet, bottom dust sealing dust sheet, slide bolt cover, metal scraping plate

2-2-3 产品规格说明
Product Specification

DB-GE 系列分为非互换性及互换性型两种线性滑轨，两种规格尺寸相同，主要差异点在于互换性型的滑块、滑轨可单独互换使用，较便利，但其组合精度无法达到非互换性型的超精密级以上的精度，互换性型的组合精度目前已达到一定的水准，对不需配对安装线性滑轨的客户而言是一项使用便利的选择。线性滑轨的产品规格型号主要标明线性滑轨尺寸、型式、精度等级、预压等规格要求，以利订货时双方对产品的确认。

DB-GE series is divided into non-interchangeable and interchangeable linear slides, the two types of the same size, the main difference is that the interchangeable slider and slide can be used separately and interchangeably, which is more convenient, but its combined accuracy cannot reach the non-interchangeable type of ultra-precision precision precision, the combined accuracy of the interchangeable type has reached a certain level. It is a convenient option for customers who do not need to install linear slides in pairs. The product specifications and models of linear slide rails mainly indicate the size, type, precision grade, preloading and other specifications requirements of linear slide rails, so as to facilitate the confirmation of products by both parties when ordering.

(1) 非互换性线性滑轨产品型号
Non - Interchangeable Linear Slide Product Models

DB-GE W 25 C A E 2 R 1600 E ZA P II + KK/E2/RC

- DB-GE 系列 — DB-GH Series
- 滑块型式 — Sliding Block Type
  - W：法兰型 W:Flange Type
  - H：四方型 H:Square Type
- 尺寸: — Dimensions: 15, 20, 25, 30, 35
- 负荷型式 — Load Type
  - C：重负荷 C:Heavy Duty
  - S：中负荷 S:Medium Load
- 滑块固定方式 — Sliding Block Fixing Method
  - A：上锁式 A:Upward Locking Type
  - B：下锁式 B:Downward Locking Type
- E: 滑块特殊加工 — E:Special Processing Of Sliders
- 无记号：滑块无特殊加工 — No Mark: The Slider Has No Special Processing
- 单支滑轨组装的滑块数 — Number Of Sliding Blocks In A Single Rail Assembly
- 单轴滑轨数[1] — Number Of Single Shaft Slides
- 精度: — Accuracy: C, H, P, SP, UP
- 预压：Z0, ZA, ZB — Precompression
- 滑轨长度(mm) — Slide Length(mm)
- 滑轨固定方式 — Sliding Rail Fixing Method
  - R：上锁式 R:Upward Locking Type
  - T：下锁式 T: Downward Locking Type
- 防尘配备[2] — Dustproof Equipment
  - E2：自润式 E2:Self Lubrication Type
  - SE：金属端盖式 SE:Metal End Cap Type
  - RC：强化型螺栓盖 RC:Reinforced Bolt Cover

注：1. 单轴滑轨数若只使用一支滑轨则不写，两支标记为 II，三支样认为 III，以此类推。
Note: 1. If only one slide of single axis is used, it will not be written down. Two slides will be marked as II, three slides will be considered as III, and so on

2. 防尘配备中无记号为防尘标准配备刮油片加防尘片。
2.There is no mark in the dust proof equipment is the standard equipment of dust proof scraping plate and dust proof plate.

ZZ 为刮油片加防广片加金属刮板。
ZZ is an oil scraper plus an anti - wide plate plus a metal scraper.

KK 为双刮油片加防尘片加金属刮板。
KK is double scraping oil plate plus dust plate plus metal scraping plate.

DD 为双刮油片加防尘片。
DD is double oil scraper and dust proof plate.

(2) 互换性线性滑轨产品型号
Models Of Interchangeable Linear Slide Rail Products

- 互换型滑块产品型号
- Interchangeable Slider Product Model

DB-GE W 25 C A E ZA P + ZZ/E2

- DB-GE 系列 — DB-GH Series
- 滑块型式 Sliding Block Type
  - W：法兰型 W:Flange Type
  - H：四方型 H:Square Type
- 尺寸: Dimensions: 15, 20, 25, 30, 35
- 负荷型式 Load Type
  - C：重负荷 C:Heavy Duty
  - S：中负荷 S:Medium Load
- E: 滑块特殊加工 — E:Special Processing Of Sliders
- 无记号：滑块无特殊加工 — No Mark: The Slider Has No Special Processing
- 滑块固定方式 — Sliding Block Fixing Method
  - A：上锁式, B：下锁式 — A:Upward Locking Type, B:Downward Locking Type
- 精度: C, H, P — Accuracy
- 预压：Z0, ZA — Precompression
- 防尘配备[2] Dustproof Equipment
  - E2：自润式 E2:Self Lubrication Type
  - SE：金属端盖式 SE:Metal End Cap Type

- 互换型滑轨产品型号
- Interchangeable Slide Product Model

DB-GE R 25 R 1240 E P + RC

- DB-GE 系列 — DB-GH Series
- 单出滑轨 — Single Out Slide Rail
- 尺寸: — Dimensions: 15, 20, 25, 30, 35
- 滑轨固定方式 — Sliding Rail Fixing Method
  - R/U：上锁式 R/U:Upward Locking Type
  - T：下锁式 T: Downward Locking Type
- 滑轨长度(mm) — Slide Length(mm)
- E: 滑轨特殊加工 — E:Special Processing Of Slide Rails
- 无记号：滑轨无特殊加工 — No Mark: The Slide Rail Has No Special Processing
- 精度: C, H, P — Accuracy
- RC：强化型螺栓盖 — RC:Reinforced Bolt Cover

DB-GE 系列

DB-GE Series

低组装型滚珠线性滑轨

Low Assembly Ball Linear Slide

2-2-4 DB-GE 系列型式

DB-GE Series Type

(1) 滑块型式

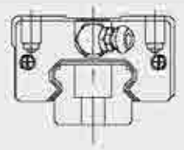
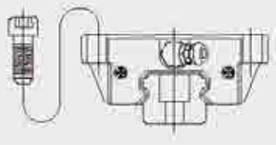
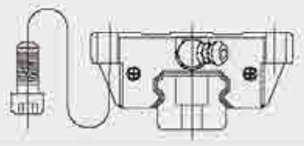
Slider Type

提供法兰型及四方型两种线性滑块。

Flange type and square type two linear sliders are provided

滑块型式

SLIDER TYPE

型式 Type	规格 Specifications	形状 Shape	高度尺寸 Height Dimension (mm)	滑轨长度 Slide Length (mm)	应用设备 Application equipment
四方型 Square Type	DB-GEH-SA DB-GEH-CA		24 ↓ 48	100 ↓ 4000	○自动化装置 Automatic device ○高速运输设备 High speed transport equipment ○精密测量仪器 Precision measuring instrument ○半导体设备 Semicooductor equipment
法兰型 Flange Type	DB-GEW-SA DB-GEW-CA		24 ↓ 48	100 ↓ 4000	
	DB-GEW-SB DB-GEW-CB		24 ↓ 48	100 ↓ 4000	

(2) 滑轨型式

Slide Rail Type

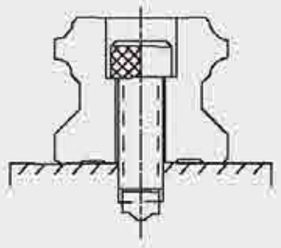
除了一般上锁式螺栓孔滑轨外，亦提供下锁式螺丝孔滑轨，方便客户安装使用。

In addition to the general locking bolt hole slide rail, the lower locking screw hole slide rail is also provided for easy installation and use.

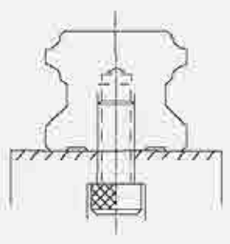
滑轨型式

LIDE RAIL TYPE

上锁式螺栓孔 Locking Bolt Hole



下锁式螺丝孔 Lower Lock Type Screw Hole

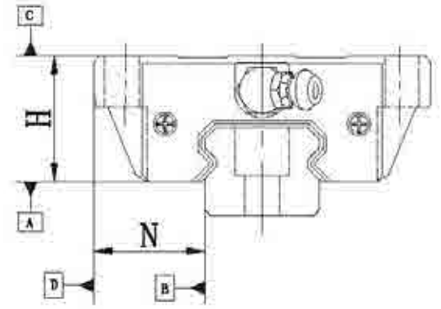


2-2-5 精度等级

Precision Class

DB-GH 系列线性滑轨的精度，分为普通、高、精密、超精密、超高精密级共五级客户可依设备精度需求选用精度。

The precision of DB-GH series linear slide rails is divided into five levels: ordinary, high, precision, ultra precision, and ultra high precision. Customers can choose the precision according to their precision requirements.



(1) 非互换性线性滑轨精度

Non-Interchangeable Linear Slide Accuracy

组合件精度表

Assembly Accuracy Table

单位: mm

Unit:mm

型号 Model	DB-GE-15,20				
精度等级 Accuracy Class	普通级 Ordinary Level (C)	高级 Advanced Level (H)	精密级 Precision Level (P)	超精密级 Ultra Precision Level (SP)	超高精密级 Ultra High Precision Level (UP)
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H	±0.1	±0.03	0 -0.03	0 -0.015	0 -0.008
高度 N 的容许尺寸误差 Permissible Dimensional Error Of Height N	±0.1	±0.03	0 -0.03	0 -0.015	0 -0.008
成对高度 H 的相互误差 Mutual Error Of Paired Height H	0.02	0.01	0.006	0.004	0.003
成对高度 N 的相互误差 Mutual Error Of Paired Height N	0.02	0.01	0.006	0.004	0.003
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking	行走平行度 (见表格 2-2-7) Walking Parallelism(Refer to Table 2-2-7)				
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking	行走平行度 (见表格 2-2-7) Walking Parallelism(Refer to Table 2-2-7)				

组合件精度表

Assembly Accuracy Table

单位: mm

Unit:mm

型号 Model	DB-GE-25,30,35				
精度等级 Accuracy Class	普通级 Ordinary Level (C)	高级 Advanced Level (H)	精密级 Precision Level (P)	超精密级 Ultra Precision Level (SP)	超高精密级 Ultra High Precision Level (UP)
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H	±0.1	±0.04	0 -0.04	0 -0.02	0 -0.01
高度 N 的容许尺寸误差 Permissible Dimensional Error Of Height N	±0.1	±0.04	0 -0.04	0 -0.02	0 -0.01
成对高度 H 的相互误差 Mutual Error Of Paired Height H	0.02	0.015	0.007	0.005	0.003
成对高度 N 的相互误差 Mutual Error Of Paired Height N	0.03	0.015	0.007	0.005	0.003
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking	行走平行度 (见表格 2-2-7) Walking Parallelism(Refer to Table 2-2-7)				
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking	行走平行度 (见表格 2-2-7) Walking Parallelism(Refer to Table 2-2-7)				

DB-GE 系列 DB-GE Series

低组装型滚珠线性滑轨
Low Assembly Ball Linear Slide

(2) 互换性线性滑轨精度
Interchangeability Linear Slide Accuracy

单出件精度表
SINGLE OUTPUT ACCURACY TABLE

单位: mm
Unit:mm

型号 Model	DB-GE-15,20		
精度等级 Accuracy Class	普通级 Ordinary Level (C)	高级 Advanced Level (H)	精密级 Precision Level (P)
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H	±0.1	±0.03	±0.015
高度 N 的容许尺寸误差 Permissible Dimensional Error Of Height N	±0.1	±0.03	±0.015
成对高度 H 的相互误差 Mutual Error Of Paired Height H	0.02	0.01	0.006
成对高度 N 的相互误差 Mutual Error Of Paired Height N	0.02	0.01	0.006
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking	行走平行度 (见表格 2-2-7) Walking Parallelism(Refer to Table 2-2-7)		
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking	行走平行度 (见表格 2-2-7) Walking Parallelism(Refer to Table 2-2-7)		

单出件精度表
SINGLE OUTPUT ACCURACY TABLE

型号 Model	DB-GE-25,30,35		
精度等级 Accuracy Class	普通级 Ordinary Level (C)	高级 Advanced Level (H)	精密级 Precision Level (P)
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H	±0.1	±0.04	±0.02
高度 N 的容许尺寸误差 Permissible Dimensional Error Of Height N	±0.1	±0.04	±0.02
成对高度 H 的相互误差 Mutual Error Of Paired Height H	0.02	0.015	0.007
成对高度 N 的相互误差 Mutual Error Of Paired Height N	0.03	0.015	0.007
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking	行走平行度 (见表格 2-2-7) Walking Parallelism(Refer to Table 2-2-7)		
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking	行走平行度 (见表格 2-2-7) Walking Parallelism(Refer to Table 2-2-7)		

(3) 行走平行度精度
Precision Of Walking Parallelism

行走平行度精度
PRECISION OF WALKING PARALLELISM

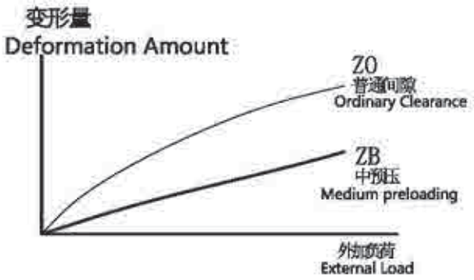
滑轨长度 (mm) Slide Length	精度等级 (μm) Accuracy Class				
	C	H	P	SP	UP
0~100	12	7	3	2	2
100~200	14	9	4	2	2
200~300	15	10	5	3	2
300~500	17	12	6	3	2
500~700	20	13	7	4	2
700~900	22	15	8	5	3
900~1100	24	16	9	6	3
1100~1500	26	18	11	7	4
1500~1900	28	20	13	8	4
1900~2500	31	22	15	10	5
2500~3100	33	25	18	11	6
3100~3600	36	27	20	14	7
3600~4000	37	28	21	15	7

2-2-6 预压力
Prepressure

(1) 预压力定义
Prepressure Definition

预压力是预先给予钢珠负荷力，亦即加大钢珠直径，利用钢珠与滚道的间负向间隙给与预压，此举能提高线性滑轨的刚性及消除间隙；以上图来解释，提高预压力可增加线性滑轨刚性。但小规格建议选用轻预压以下预压，以避免因预压选 用过重降低其使用寿命。

Prepressure is to give the steel ball load force in advance, that is, to increase the diameter of the steel ball, using the negative gap between the steel ball and the raceway for prepressure, which can improve the rigidity of the linear slide rail and eliminate the gap; As explained in the above figure, increasing the prepressure can increase the rigidity of the linear slide. But for small specifications, it is recommended to choose light preloading below preloading, so as to avoid reducing its service life due to excessive preloading selection.



(2) 预压等级
Preloading Grade

DB-GE 系列线性滑轨提供三种标准预压，可依据用途选择适当预压力。
The DB-GE series linear slide provides three standard prepressures, which can be selected according to the application.

预压等级
PRELOADING GRADE

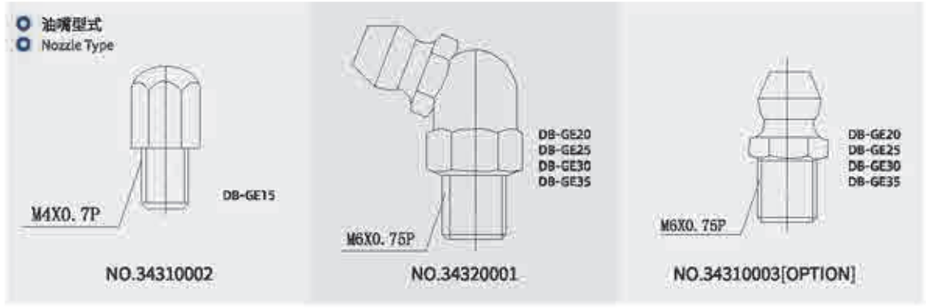
预压等级 Preloading Grade	标记 Symbol	预压力 Preload	使用条件 Conditions Of Use
无预压 No Preloading	ZO	0-0.02C	负荷方向固定且冲击小，精度要求低 The load direction is fixed and the impact is small, with low accuracy requirements
轻预压 Light Preloading	ZA	0.03C-0.05C	轻负荷且要求高精度 Light load and high precision required
中预压 Medium Preloading	ZB	0.06C-0.08C	刚性要求，且有振动，冲击的使用环境 Rigidity requirements, as well as vibration and impact environments for use

等级 Grade	互换性线轨 (单出件) Interchangeable track (single piece)	非互换性线轨 (组合件) Non interchangeable track (assembly)
预压等级 Preloading Grade	ZO,ZA	ZO,ZA,ZB

注 : 预压力中 C 是动额定负荷
ote: C in the prepressure is the dynamic rated load

2-2-7 润滑方式
Lubrication Mode

(1) 润滑油脂
Lubricating Oil



DB-GE 系列

DB-GE Series

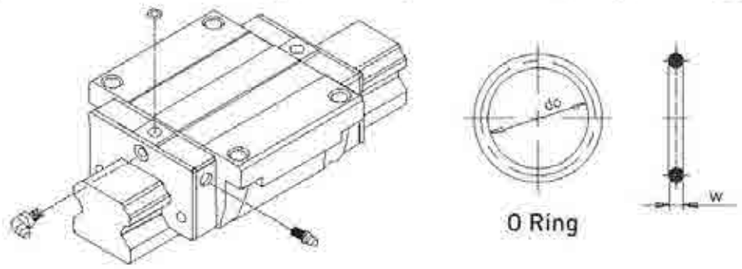
低组装型滚珠线性滑轨

Low Assembly Ball Linear Slide

○ 油嘴位置
○ Nozzle Position

依客户需要在滑块前端或后端装上油嘴以供手动打油，DB-GE 系列特别在端盖侧边预留侧油孔位置安装油嘴（一般为直油嘴），提供侧向打油，侧向打油的位置建议在非侧基准边，但若有特殊需要也可放在侧基准边。客户如有上述侧向打油需求请与我们联络。DB-GE 系列在端盖顶端也预留上油孔位置，客户若欲从端盖上方供油，须使用直径 0.8mm 的金属针以预热的方式，在指定位置将上油孔穿通，再将密封环安装于凹处即可，避免使用钻头穿通上油孔，碎屑有污染油道的危险。使用接管方式自动供润滑油脂的线性滑轨，则可依连接管型式选用安装油管接头。

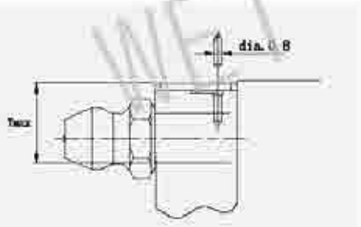
According to customer needs, oil nozzles are installed on the front or back end of the slide block for manual oil pumping. DB-GE series especially install oil nozzles (usually straight oil nozzles) at the reserved side oil holes on the side of the end cover to provide side oil pumping. It is recommended that the side oil pumping position be on the non-side reference edge, but if there is special need, it can also be placed on the side reference edge. If customers have the above side oil needs please contact us. The DB-GE series also reserves an oil hole at the top of the end cover. If you want to supply oil from the top of the end cover, use a metal needle with a diameter of 0.8mm to preheat the oil hole at the specified position, and then install the sealing ring in the concave place. Otherwise, the oil channel may be contaminated by debris. The linear slide rail used for lubricating grease automatically can be installed according to the type of connecting pipe.



O Ring

规格与穿孔最大容许深度
SPECIFICATIONS AND MAXIMUM ALLOWABLE PIERCING DEPTH

规格 Specifications	O-Ring 规格 O-Ring Specifications		穿孔最大容许深度 TMax(mm) Maximum Allowable Depth Of Perforation
	do(mm)	W(mm)	
DB-GE15	2.5±0.15	1.5±0.15	6.9
DB-GE20	4.5±0.15	1.5±0.15	8.4
DB-GE25	4.5±0.15	1.5±0.15	10.4
DB-GE30	4.5±0.15	1.5±0.15	10.4
DB-GE35	4.5±0.15	1.5±0.15	10.8



○ 单个滑块填满润滑油脂油量
○ Single Slider Filled With Lubricating Fat Amount

单个滑块润滑油脂油量
LUBRICATING OIL AMOUNT OF A SINGLE SLIDER

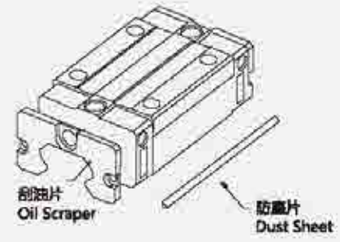
规格 Specifications	中负荷 (cm^3) Medium Load	重负荷 (cm^3) Heavy Duty
DB-GE15	0.8	1.4
DB-GE20	1.5	2.4
DB-GE25	2.8	4.6
DB-GE30	3.7	6.3
DB-GE35	5.6	6.6

每运行 100km，或每 3 至 6 个月确认一次油脂。
Check grease every 100km, or every 3 to 6 months.

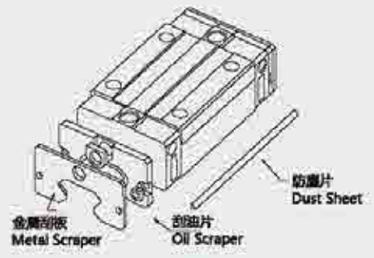
2-2-8 防尘配备
Dust Proof Equipment

(1) 标准防尘配备代码
Standard Dust Proof Equipment Code

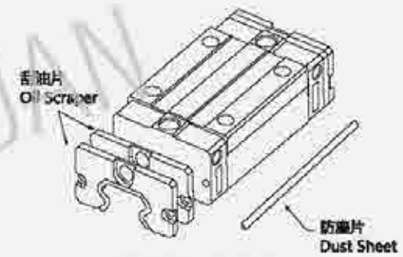
若有下列防尘配备需求时，请于产品型号后面加注代码。
If the following dust proof equipment requirements, please add the code after the product model.



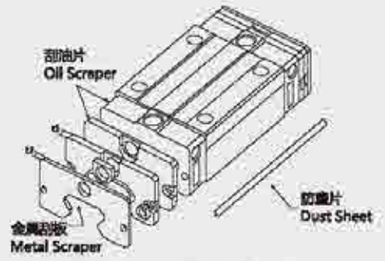
无记号为标准防尘配备（刮油片 + 防尘片）
Standard dust proof equipment without mark (oil scraper + dust sheet)



ZZ(刮油片 + 金属刮板 + 防尘片)
ZZ(Oil scraper + metal scraper + dust sheet)



DD(双刮油片 + 防尘片)
DD(Double oil scraper + dust sheet)



KK(双刮油片 + 金属刮板 + 防尘片)
KK(Double oil scraper + metal scraper + dust sheet)

(2) 防尘配备说明
Dust Proof Instruction

○ 刮油片及底部防尘片
○ Scraping Sheet And Bottom Dust Sheet

阻止加工铁屑或尘粒进入滑块里面，破坏滚道表面而降低线性滑轨寿命。
Prevent machining iron chips or dust particles from entering the slider, damaging the raceway surface and reducing the life of the linear slide.

○ 双层刮油片
○ Double Oil Scraper

加倍刮屑效果，即使在重切削加工环境中，异物完全被排除于滑块外。
Double the chip scraping effect, even in heavy cutting environment, foreign matter is completely excluded from the slide.

刮油片
Oil Scraper

规格 Specifications	厚度 (1) (mm) Thickness
DB-GE 15 ES	2
DB-GE 20 ES	2
DB-GE 25 ES	2
DB-GE 30 ES	2
DB-GE 35 ES	2

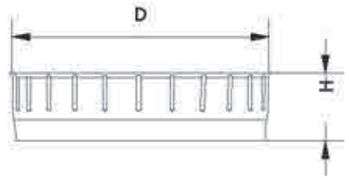
DB-GE 系列
DB-GE Series
低组装型滚珠线性滑轨
Low Assembly Ball Linear Slide

○ 金属刮板
○ Metal Scraper
可隔离高温铁屑或加工火花，并排除大体积杂质。
Can isolate high temperature iron chips or machining sparks, and eliminate large volume impurities.

金属刮板
METAL SCRAPER

规格 Specifications	厚度 (t2) Thickness (t2) (mm)
DB-GE 15 SC	0.8
DB-GE 20 SC	0.8
DB-GE 25 SC	1
DB-GE 30 SC	1
DB-GE 35 SC	1.5

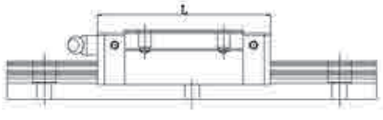
○ 滑块螺栓盖
○ Slider Bolt Cover
为防止切削粉末或异物经由螺栓孔侵入滑块内部影响精度，客户必须在安装滑轨时将螺栓盖打入螺栓孔内，每支滑轨出厂时皆配有螺栓盖。
In order to prevent cutting powder or foreign matter through the bolt hole intruding into the slider internal affect accuracy, the customer must install the bolt cover into the bolt hole, each slide is equipped with bolt cover when leaving the factory.



滑轨防尘盖
DUST COVER OF SLIDE RAIL

滑轨规格 Slide Rail Specifications	安装螺丝 Mounting Screw	直径 (D) Diameter (D) (mm)	厚度 (H) Thickness (H) (mm)
DB-GER15R	M3	6.15	1.2
DB-GER20R	M5	9.65	2.5
DB-GER25R	M6	11.15	2.5
DB-GER30R	M6	11.15	2.5
DB-GER35R	M8	14.20	3.5

(3) 各防尘代码的滑块总长度
The Total Length Of The Slider For Each Dust Proof Code



各防尘代码及滑块长度
THE DUST PROOF CODE AND LENGTH OF THE SLIDE BLOCK

单位：mm
Unit mm

规格 Specifications	滑块总长度 Total Length Of The Slider			
	标准 Standard	ZZ	DD	KK
DB-GE15S	41.1	43.7	46.1	48.7
DB-GE15C	57.8	60.4	62.8	65.4
DB-GE20S	51.2	53.8	56.4	59
DB-GE20C	70.3	72.9	75.5	78.1
DB-GE25S	59.7	62.3	65.7	68.3
DB-GE25C	85.2	87.8	91.2	93.8
DB-GE30S	71.9	74.5	78.1	80.7
DB-GE30C	100.4	103	106.6	109.2
DB-GE35S	76	79	80	83
DB-GE35C	108	111	112	115

2-2-9 摩擦力
Friction Force

此阻力值为单片刮油片的最大阻力
This resistance value is the maximum resistance of a single oil scraper

DB-GE 系列刮油片阻力
SERIES OIL SCRAPER RESISTANCE

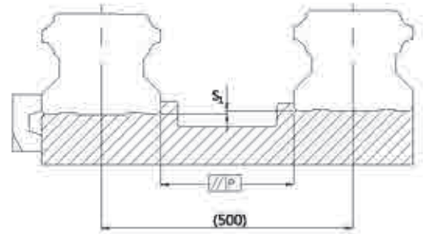
规格 Specifications	刮油片阻力 N(kgf) Oil Scraper Resistance N(kgf)
DB-Ge15	1[0.1]
DB-Ge 20	1.7[0.17]
DB-Ge 25	2[0.2]
DB-Ge 30	2.6[0.27]
DB-GE 35	3.5[0.36]

注：1kgf=9.81N

2-2-10 安装平面误差
Installation Plane Error

DB-GE 系列为圆弧两点接触式线性滑轨，其自动调心的特性可以吸收安装面的些许误差而不影响直线运动的顺畅性；
The DB-GE series is a circular arc two point contact linear sliding rail, with its automatic centering feature that can absorb some errors on the installation surface without affecting the smoothness of linear motion;

下表中注明了安装平面的容许误差值：
The allowable error values for the installation plane are indicated in the following table:



容许平行度误差 (P)
ALLOWABLE PARALLELISM ERROR (P)

单位：mm
Unit mm

规格 Specifications	预压等级 Preloading Grade		
	ZO	ZA	ZB
DB-GE 15	25	18	—
DB-GE 20	25	20	18
DB-GE 25	30	22	20
DB-GE 30	40	30	27
DB-GE 35	50	35	30

容许上下水平度误差 (S_1)
ALLOWABLE LEVELNESS ERROR (S1)

单位：mm
Unit mm

规格 Specifications	预压等级 Preloading Grade		
	ZO	ZA	ZB
DB-GE 15	130	85	—
DB-GE 20	130	85	50
DB-GE 25	130	85	70
DB-GE 30	170	110	90
DB-GE 35	210	150	120

注：容许值与轴间距离成比例
Note: The allowable value is proportional to the distance between axes

DB-GE 系列

DB-GE Series

低组装型滚珠线性滑轨

Low Assembly Ball Linear Slide

2-2-11 安装注意事项

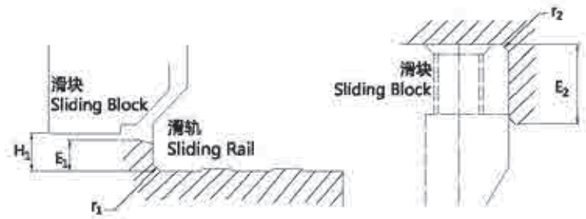
Installation Precautions

(1) 安装面肩部高度及倒角

Mounting Surface Shoulder Height And Chamfer

安装线性滑轨时必须注意安装面肩部的状况是否适当，如倒角过大，凸出的地方易造成线性滑轨精度不良，而高度过高则会干涉滑块。故如果能依照建议要求安装面肩部，安装精度不良即可排除。

When installing linear slide rail, we must pay attention to whether the condition of the shoulder of the installation surface is appropriate. If the chamfer is too large, the protruding place is easy to cause poor accuracy of the linear slide rail, and the height is too high, it will interfere with the slide block. Therefore, if the shoulder can be installed according to the recommended requirements, poor installation accuracy can be excluded.



高度与倒角

HEIGHT AND CHAMFER

单位：mm

Unit: mm

规格 Specifications	滑轨的最大倒角 The Maximum Chamfer Of The Slide Rail	滑块的最大倒角 Maximum Chamfer Of Slider	滑轨的肩部高度 The Shoulder Height Of The Slide Rail	滑块的肩部高度 The Shoulder Height Of The Slider	滑块运行净高 Operating Net Height Of Slider
	r (mm)	r (mm)	E (mm)	E2(mm)	H (mm)
DB-GE15	0.5	0.5	2.7	5.0	4.5
DB-GE20	0.5	0.5	5.0	7.0	6.0
DB-GE25	1.0	1.0	5.0	7.5	7.0
DB-GE30	1.0	1.0	7.0	7.0	10.0
DB-GE35	1.0	1.0	7.5	9.5	11.0

(2) 滑轨装配螺丝的扭力值

Torque Value Of Mounting Screws Of Slide Rail

安装滑轨时是否锁紧贴平基准面影响线性滑轨精度甚剧，因此为达到每颗螺丝都能锁紧的目的，建议使用下列扭力值锁紧螺丝。

The accuracy of the linear slide is greatly affected by whether the slide is locked close to the datum plane when installing the slide. Therefore, in order to achieve the purpose of locking each screw, it is recommended to use the following torque value locking screws.

扭力值

TORSION VALUE

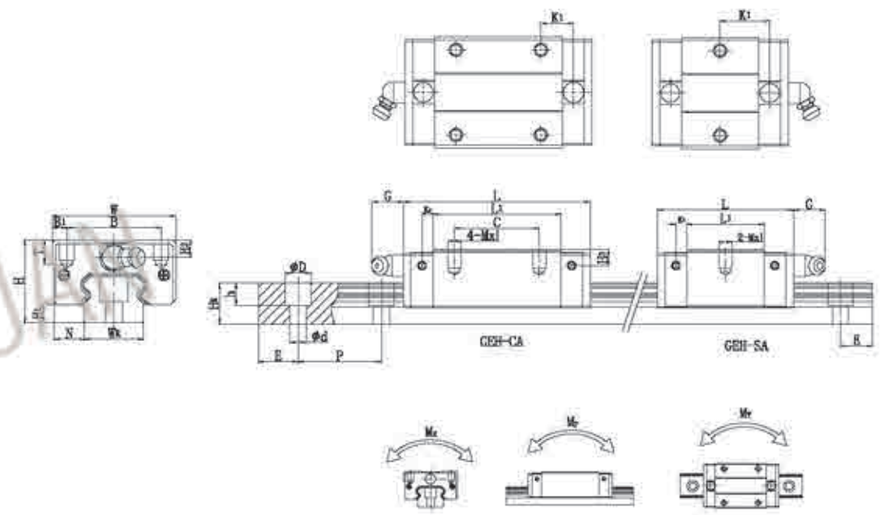
规格 Specifications	螺丝规格 Screw Specification	扭力值 N-cm(kgf-cm) Torsion Value N-cm(kgf-cm)		
		铁件材质 Iron Material	铸件材质 Casting Material	铝合金材质 Aluminum Alloy Material
DB-GE15	M3x0.5Px16L	186(19)	127(13)	98(10)
DB-GE20	M5x0.8Px16L	883(90)	588(60)	441(45)
DB-GE25	M6x1Px20L	1373(140)	921(94)	686(70)
DB-GE30	M6x1Px25L	1373(140)	921(94)	686(70
DB-GE35	M8x1.25Px25L	3041(310)	2010(206)	1470(150)

注：1kgf=9.81N

2-2-12 DB-GE 系列线性滑轨尺寸表

DB-GE Series Linear Slide Size Table

(1)DB-GEH-SA/DB-GEH-CA



型号 Model	组件尺寸 (mm) Component Dimensions (mm)							滑块尺寸 (mm) Slide Dimensions(mm)									滑轨尺寸 (mm) Sliding Rail Dimensions(mm)							安装的固定螺栓尺寸 Dimensions Of Fixing Bolts For Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H_1	N	W	B	B_1	C	L_1	L	K_1	K_2	G	Mxt	T	T_1	H_2	H_3	W_2	H_2	D	h	d	p	E	(mm)	C (kN)	C_0 (kN)	M_x KN-m	M_y KN-m	M_z KN-m	滑块 Slider kg	滑轨 Sliding Rail kg/m
GEH15SA	24	4.5	9.5	34	26	4	-	23.1	41.1	14.8	3.5	5.7	M4x6	6	5.5	6	15	12.5	7.5	5.3	4.5	60	20	M4x16	5.35	9.4	0.08	0.04	0.04	0.09	1.25	1.25
GEH15CA							26	39.8	57.8	10.15																7.83	16.19	0.13	0.1	0.1	0.15	
GEH20SA	28	6	11	42	32	5	-	29	51.2	18.75	4.15	12	M5x7	7.5	9	6	20	15.5	9.5	8.5	6	60	20	M5x16	7.23	12.74	0.13	0.06	0.08	0.15	2.08	2.08
GEH20CA							32	48.1	70.3	12.3																10.31	21.13	0.22	0.16	0.16	0.24	
GEH25SA	33	7	12.5	48	35	6.5	-	35.5	59.7	21.9	4.55	12	M6x9	8	8	8	23	18	11	9	7	60	20	M6x20	11.4	19.5	0.23	0.12	0.12	0.25	2.67	2.67
GEH25CA							35	59	83.2	16.15																16.27	32.4	0.38	0.32	0.32	0.41	
GEH30SA	42	10	16	60	40	10	-	41.5	71.9	26.75	6	12	M8x12	9	8	9	28	23	14	12	9	80	20	M8x25	16.42	28.1	0.4	0.21	0.21	0.45	4.35	4.35
GEH30CA							40	70	100.4	21.05																23.7	47.46	0.68	0.55	0.55	0.76	
GEH35SA	48	11	18	70	50	10	-	45	75	28.5	7	12	M8x12	10	8.5	8.5	34	27.5	14	12	9	80	20	M8x25	22.66	37.38	0.56	0.31	0.31	0.74	6.14	6.14
GEH35CA							50	78	108	20																33.35	64.84	0.98	0.89	0.89	1.1	

注 :1 kgf = 9.81N

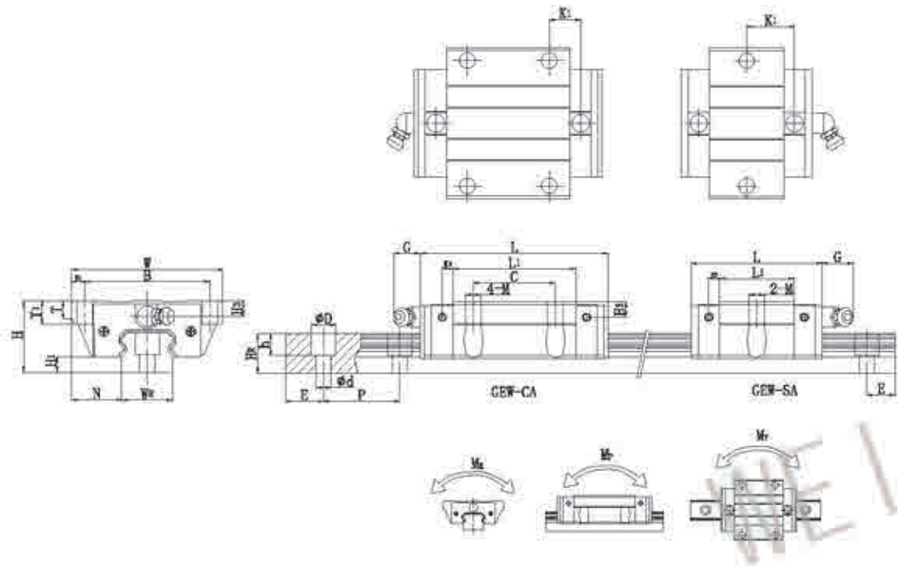
DB-GE 系列

DB-GE Series

低组装型滚珠线性滑轨

Low Assembly Ball Linear Slide

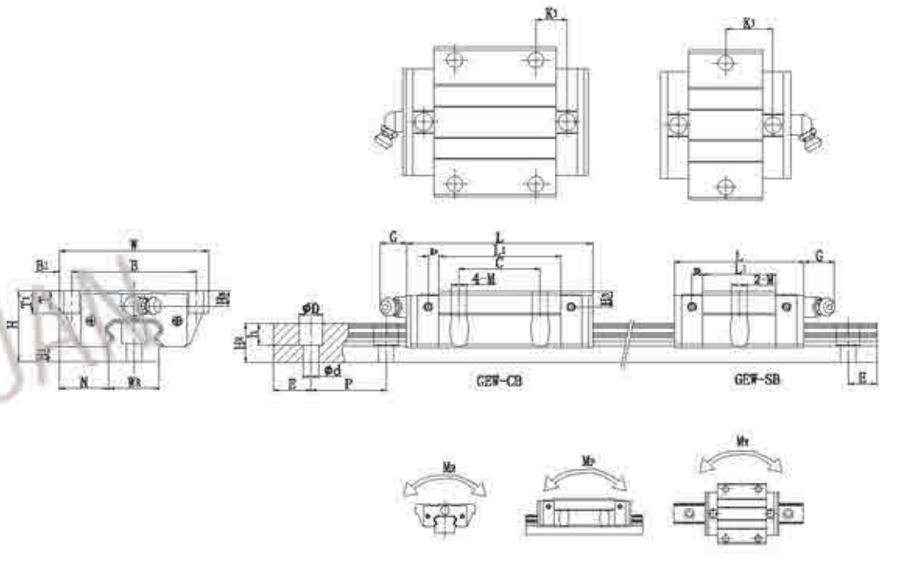
(2)DB-GEW-SA/ DB-GEW-CA



型号 Model	组件尺寸 (mm) Component Dimensions (mm)			滑块尺寸 (mm) Slide Dimensions(mm)													滑轨尺寸 (mm) Sliding Rail Dimensions(mm)							滑轨的固定螺栓尺寸 Dimensions Of Fixing Bolts For Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H_1	N	W	B	B_1	C	L_1	L	K_1	K_2	G	M	T	T_1	H_2	H_3	W_4	H_4	D	h	d	p	E	(mm)	C (kN)	C_0 (kN)	M_A KN-m	M_B KN-m	M_C KN-m	滑块 Slider kg	滑轨 Sliding Rail kg/m
GEW15SA	24	4.5	18.5	52	41	5.5	-	23.1	41.1	14.8	3.5	5.7	M5	5	7	5.5	6	15	12.5	7.5	5.3	4.5	60	20	M4x16	5.35	9.4	0.08	0.04	0.04	0.12	1.25
GEW15CA							26	39.8	57.8	10.15																7.83	16.19	0.13	0.1	0.1	0.21	
GEW20SA	28	6	19.5	59	49	5	-	29	51.2	18.75	4.15	12	M6	7	9	8	6	20	15.5	9.5	8.5	6	60	20	M5x16	7.23	12.74	0.13	0.06	0.06	0.19	2.08
GEW20CA							32	48.1	70.3	12.3																10.31	21.13	0.22	0.16	0.16	0.32	
GEW25SA	33	7	25	73	60	6.5	-	35.5	59.7	21.9	4.55	12	M8	7.5	10	8	8	23	18	11	9	7	60	20	M6x20	11.4	19.5	0.23	0.12	0.12	0.35	2.67
GEW25CA							35	59	83.2	16.15																16.27	32.4	0.38	0.32	0.32	0.59	
GEW30SA	42	10	31	90	72	9	-	41.5	71.9	26.75	6	12	M10	7	10	8	9	28	23	14	12	9	80	20	M8x25	16.42	28.1	0.4	0.21	0.21	0.62	4.35
GEW30CA							40	70	100.4	21.05																23.7	47.46	0.68	0.55	0.55	1.04	
GEW35SA	48	11	33	100	82	9	-	45	75	28.5	7	12	M10	10	13	8.5	8.5	34	27.5	14	12	9	80	20	M8x25	22.66	37.38	0.56	0.31	0.31	0.84	6.14
GEW35CA							50	78	108	20																33.35	64.84	0.98	0.69	0.69	1.45	

注 :1 kgf = 9.81N

(3) DB-GEW-SB / DB-GEW-CB



型号 Model	组件尺寸 (mm) Component Dimensions (mm)			滑块尺寸 (mm) Slide Dimensions(mm)													滑轨尺寸 (mm) Sliding Rail Dimensions(mm)							滑轨的固定螺栓尺寸 Dimensions Of Fixing Bolts For Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H_1	N	W	B	B_1	C	L_1	L	K_1	K_2	G	M	T	T_1	H_2	H_3	W_4	H_4	D	h	d	p	E	(mm)	C (kN)	C_0 (kN)	M_A KN-m	M_B KN-m	M_C KN-m	滑块 Slider kg	滑轨 Sliding Rail kg/m
GEW15SB	24	4.5	18.5	52	41	5.5	-	23.1	41.1	14.8	3.5	5.7	Ø4.5	5	7	5.5	6	15	12.5	7.5	5.3	4.5	60	20	M4x16	5.35	9.4	0.08	0.04	0.04	0.12	1.25
GEW15CB							26	39.8	57.8	10.15																7.83	16.19	0.13	0.1	0.1	0.21	
GEW20SB	28	6	19.5	59	49	5	-	29	51.2	18.75	4.15	12	Ø5.5	7	9	8	6	20	15.5	9.5	8.5	6	60	20	M5x16	7.23	12.74	0.13	0.06	0.06	0.19	2.08
GEW20CB							32	48.1	70.3	12.3																10.31	21.13	0.22	0.16	0.16	0.32	
GEW25SB	33	7	25	73	60	6.5	-	35.5	59.7	21.9	4.55	12	Ø7	7.5	10	8	8	23	18	11	9	7	60	20	M6x20	11.4	19.5	0.23	0.12	0.12	0.35	2.67
GEW25CB							35	59	83.2	16.15																16.27	32.4	0.38	0.32	0.32	0.59	
GEW30SB	42	10	31	90	72	9	-	41.5	71.9	26.75	6	12	Ø9	7	10	8	9	28	23	14	12	9	80	20	M8x25	16.42	28.1	0.4	0.21	0.21	0.62	4.35
GEW30CB							40	70	100.4	21.05																23.7	47.46	0.68	0.55	0.55	1.04	
GEW35SB	48	11	33	100	82	9	-	45	75	28.5	7	12	Ø9	10	13	8.5	8.5	34	27.5	14	12	9	80	20	M8x25	22.66	37.38	0.56	0.31	0.31	0.84	6.14
GEW35CB							50	78	108	20																33.35	64.84	0.98	0.69	0.69	1.45	

注 :1 kgf = 9.81N

DB-GE 系列

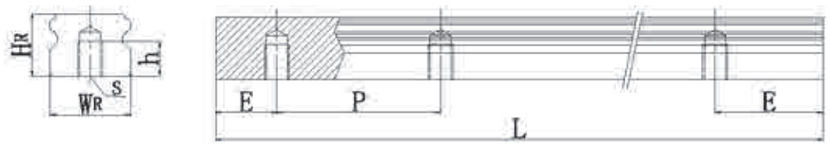
DB-GE Series

低组装型滚珠线性滑轨

Low Assembly Ball Linear Slide

(4) 下锁式滑轨尺寸表

Size Table Of Lock Slide



型号 Model	滑轨尺寸 (mm) Sliding Rail Dimensions(m						重量 Weight
	WR	HR	S	h	H	E	(kg/m)
GER15T	15	12.5	M5x0.8P	7	60	20	1.26
GER20T	20	15.5	M6x1P	9	60	20	2.15
GER25T	23	18	M6x1P	10	60	20	2.79
GER30T	28	23	M8x1.25P	14	80	20	4.42
EGR35T	34	27.5	M8x1.25P	17	80	20	6.34

DB-GM 系列

DB-GM Series

微型滚珠线性滑轨

Miniature Ball Linear Guide

2-3 微型线性滑轨

DB-GM Series Miniature Linear Slides

2-3-1 (1) 非互换性线性滑轨型号

Non-Interchangeable Linear Rail Models

DB-GMN 12 C E 2 R1600 E Z1 P M ||+ U/ RC

- DB-GMN/GMW
- 尺寸 Size: 7,9,12,15
- 负荷形式：Load of slider:
  - C: 标准型 C:standard
  - H：加长型 H:Extended
  - SGC: 高扭矩标准型 SGC:High torque standard
  - SGH：高扭矩加长型 SGH: High torque extension
  - SLA: 低组装高度 A 型 SLA:Low assembly heught typr A
  - SLB: 低组装高度 B 型 SLB: Low assembly heught typr B
  - SLI: 特殊超长型 SLI:Special extre-long type
- 导轨长度 Guideway length(mm)
- E: 滑块或导轨特殊加工 Specialized machining of block or guideway
  无记号：滑块无特殊加工 No marks:Nospecial machining for sliding block
- 单根导轨安装的滑块数 Block numbers of each guideway
- E: 滑块或导轨特殊加工 Specialized machining of block or guideway
  无记号：滑块无特殊加工 No marks:Nospecial machining for sliding block
- 预压 Preload：Z1,Z0,Z1
- 精度 Precision：C,H,P
- 材质 Mature:
  无记号：一般钢材质 No marks:General steel material
  M: 不锈钢材质 M:Stainless steel material
  HC：一般钢材质 + 镀硬铬 HC:General steel material+Hard chromium plating
  NC：一般钢材质 + 化学黑铬 NC:General steel material+Chemical black chromium
- 单轴滑轨数 Uniaxial guideway number(s)
- 防尘配置 Dust-proof configuration
- RC：强化型螺栓盖（仅 GMN12、15 可选用） Reinforced bolt cover

注：

1. 单轴滑轨数若只使用一支滑轨则不写，两支标记为 ||，三支标记为 |||，以此类推。
2. GMN 及 MGW 规格 9，12,15 可选用防尘片。

DB-GM 系列

DB-GM Series

微型滚珠线性滑轨

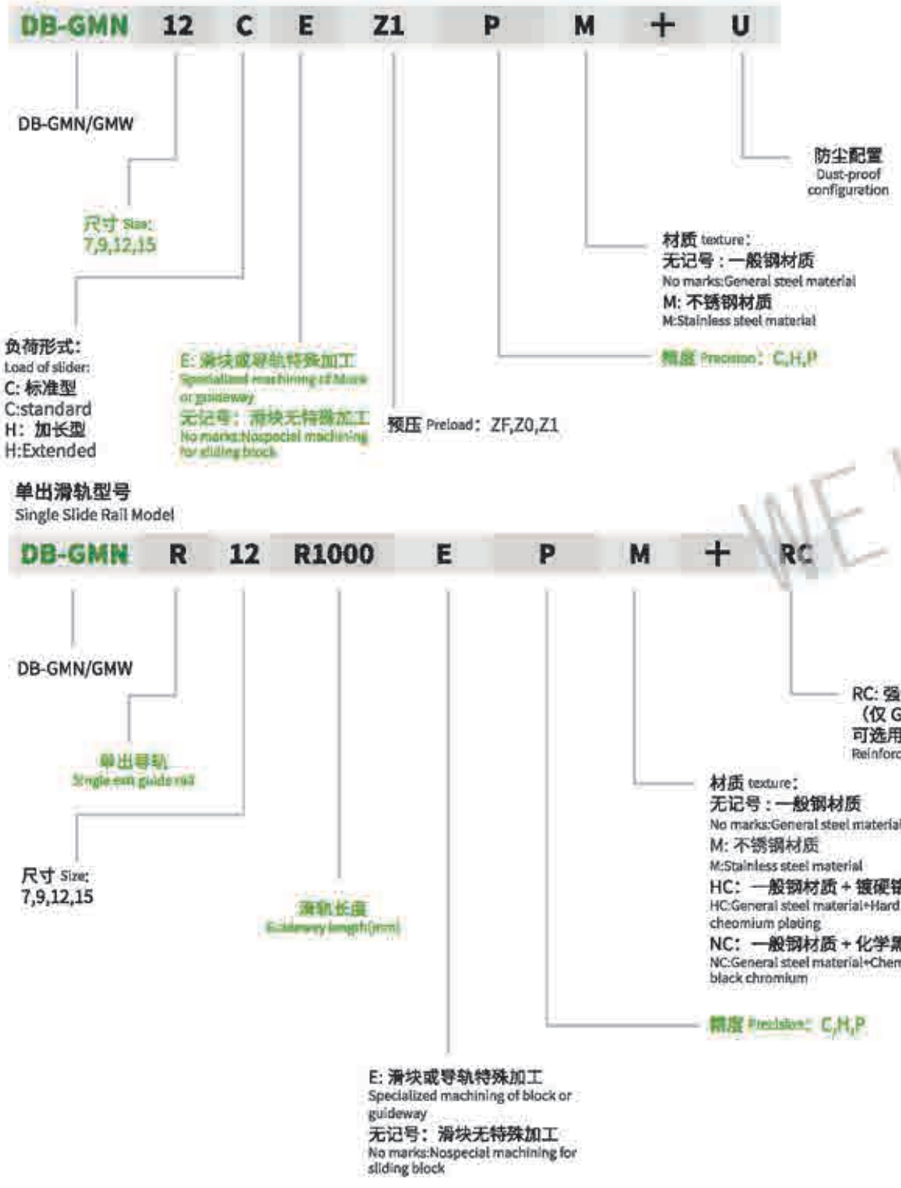
Miniature Ball Linear Guide

2-3-1 (2) 互换性滚珠线性滑轨型号

Interchangeable Ball Linear Guide Models

单出滑轨型号

Single Slide Rail Model



DB-GM 系列

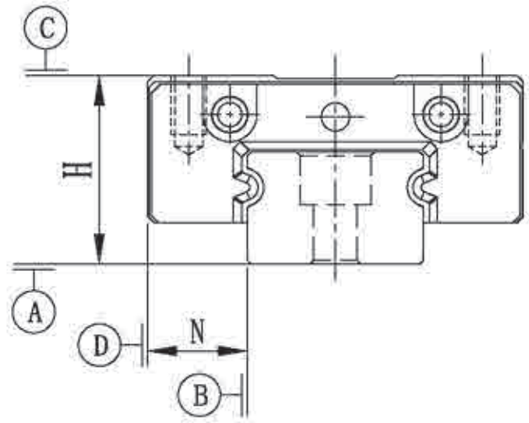
B-GM Series

微型滚珠线性滑轨

Miniature Ball Linear Guide

2-3-2 GMN 两列微型导轨精度

Interchangeable Ball Linear Guide Models



精度等级 Precision Project		普通级 Ordinary Level	高级 Advanced Level	精密级 Precision Level
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H		±0.04	±0.02	±0.01
高度 H 的容许尺寸误差 Permissible Dimensional Error Of Height H		±0.04	±0.025	±0.015
成对时 When Paired	高度 H 的相互误差 Mutual Error Of Paired Height H	0.03	0.02	0.01
	基准轨宽度 N 的相互误差 Mutual Error Of Reference Rail Width N	0.03	0.025	0.015
滑块 C 面对滑轨 A 面的行走平行度 Parallelism Of Sliding Block C Facing Sliding Rail A During Walking		行走平行度（见图一） Walking Parallelism(Refer to Picture 1)		
滑块 D 面对滑轨 B 面的行走平行度 Parallelism Of Sliding Block D Facing Sliding Rail B During Walking		行走平行度（见图一） Walking Parallelism(Refer to Picture 1)		

DB-GM 系列

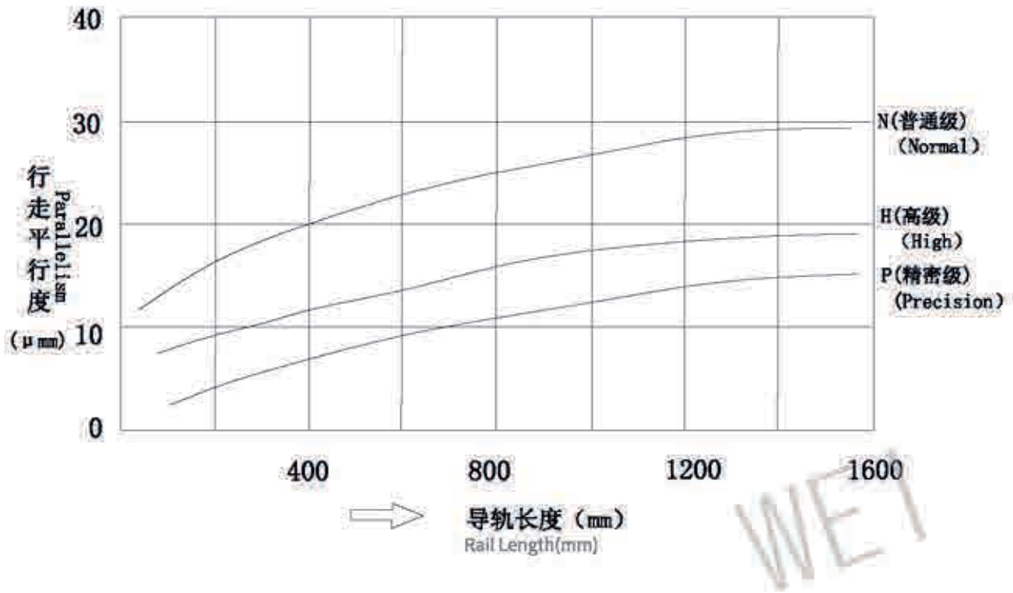
DB-GM Series

微型滚珠线性滑轨

Miniature Ball Linear Guide

行走平行度 见图一

Walking Parallelism(Picture 1)



2-3-3 GMN 两列微型导轨的预压力

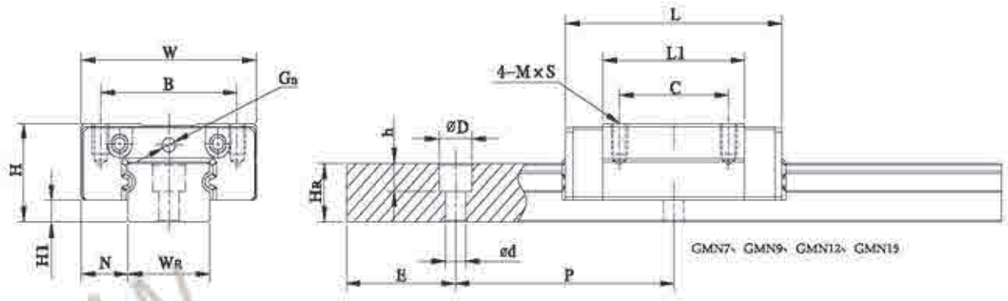
Preloading Of GMN Two-Row Micro Guideway

预压等级 Preloading Grade	标记 Mark	预压力 Preload	适合精度 Suitable For Accuracy
普通间隙 Ordinary Clearance	ZF	精密间隙 preciseclearance4-10μm	N
无预压 No Preloading	ZO	0	N-P
轻预压 Light Preloading	Z1	0.02C	N-P

2-3-4 GMN/GMW 系列滚珠线性滑轨尺寸表

GMN/GMW Series Ball Linear Guide Sizes

(1) GMN-C/GMN-H/GMN-SGC/GMN-SGH/GMN-SLA/GMN-SLB/GMN-SLI



型号 Model	组件尺寸 (mm) Component Dimensions			滑块尺寸 (mm) Slide Dimensions							滑轨尺寸 (mm) Sliding Rail Dimensions							固定螺栓尺寸 Dimensions Of Fixing Bolts For Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H1	N	W	B	C	L1	L	Gn	Mxs	WR	HR	D	h	d	D	E	(mm)	(KN)	(KN)	MR (KN)	MP (KN)	MY (KN)	滑块 Slider (g)	导轨 Sliding Rail (kg/m)
GMN7C	8	1.5	5	17	12	8	13.5	22.5	\	M3x3	7	4.8	4.2	2.3	2.4	15	两端等分 EQUIVALENT OF HOTH ENDS	M2x6	0.98	1.24	4.7	2.84	2.84	10	0.22
GMN7H						13	21.8	30.8											1.37	1.96	7.64	4.8	4.8	15	
GMN9C	10	2	5.5	20	15	10	19	29	\	M3x3.5	9	6.5	6	3.5	3.5	20		M3x8	1.86	2.55	11.76	7.35	7.35	16	0.38
GMN9H						16	30	40											2.55	4.02	19.6	18.62	18.62	26	
GMN12C	13	3	7.5	27	20	15	21.7	34.7	\	M3x4.5	12	8	6	4.5	3.5	25		M3x8	2.84	3.92	25.48	13.72	13.72	34	0.65
GMN12H						20	32.4	45.4											3.72	5.88	38.22	36.26	36.26	54	
GMN15C	16	4	8.5	32	25	20	26.7	42.1	3	M3x4	15	10	6	4.5	3.5			M3x10	4.61	5.59	45.08	21.56	21.56	59	1.20
GMN15H						25	43.4	58.8											6.37	9.11	73.5	57.82	57.82	92	
GMN15SGC	16	3.5	8.5	32	25	20	26	40	3	M3x4	15	9.5	6	4.5	3.5			M3x10	4.55	5.45	48	24.52	24.52	57	1.2
GMN15SGH						25	39	58											6.2	9.02	74.05	58.11	58.11	85	
GMN15SLA	13	1.5	8.5	32	25	20	26	40	3	M3x5	15	7.5	6	4.5	3.5	40 (50)		M3x10	4.55	5.45	45.05	21.4	21.4	45	1.06
GMN15SLB	14																		4.55	5.45	45.05	21.4	21.4	51	
GMN15SLI	16	3.5	9.5	34		30	45	59		M4x5	15	9.5	6	4.5	3.5			M5x12	6.75	9.65	77.8	61.2	61.2	97	

WEIYUAN LINEAR GUIDE 直线导轨

DB-GM 系列

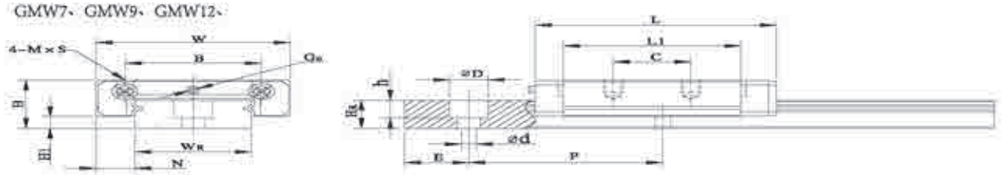
DB-GM Series

微型滚珠线性滑轨

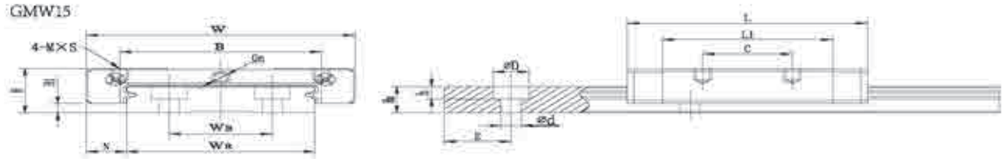
Miniature Ball Linear Guide

(2)GMW-C/GMW-H

GMW7、GMW9、GMW12、



GMW15



型号	组件尺寸 (mm) Component Dimension			滑块尺寸 (mm) Slide Dimensions						滑轨尺寸 (mm) Sliding Rail Dimensions								滑轨的固定螺栓尺寸 Dimensions Of Fixing Bolts For Slide Rails	基本动额定负荷 Basic Dynamic Rated Load	基本静额定负荷 Basic Static Rated Load	容许静力矩 Allowable Static Moment			重量 Weight	
	H	H1	N	W	B	C	L1	L	Qs	Mes	WR	WB	HR	D	h	d	p	E	(mm)	(kN)	(kN)	MR (KN)	Mp (KN)	MY (KN)	滑块 Slider (g)	滑轨 Sliding Rail (kg/m)
GMW7C	9	1.9	5.5	25	19	10	21	31.2	1.2	M3x3	14	\	5.2	6	3.2	3.5	30	两端等分 EQUIVALENT OF HOTH ENDS	M3x6	1.37	2.06	15.7	7.14	7.14	20	0.51
GMW7H						19	30.8	41												1.77	3.14	23.45	15.53	15.53	29	
GMW9C	12	2.9	6	30	21	12	27.5	39.7	1.2	M3x3	18	\	7	6	4.5	3.5	30		M3x8	2.75	4.12	40.12	18.96	18.96	40	0.91
GMW9H					23	24	38.5	50.7												3.43	5.89	54.54	34	34	57	
GMW12C	14	3.4	8	40	28	15	31.3	46.1	1.2	M3x3.6	24	\	8.5	8	4.5	4.5	40		M4x8	3.92	5.59	70.34	27.8	27.8	71	1.49
GMW12H						28	45.6	60.4												5.1	8.24	102.7	57.37	57.37	103	
GMW15C	16	3.4	9	60	45	20	38	54.8	M3	M4x4.2	42	23	9.5	8	4.5	4.5	40		M4x10	6.77	9.22	199.34	56.66	56.66	143	2.86
GMW15H						35	57	73.8												8.93	13.38	299.01	122.6	122.6	215