



广州权硕机电设备有限公司

Guangzhou Pegatron mechanical & electrical equipment Co., LTD

HepcoMotion®




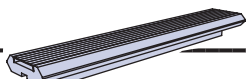
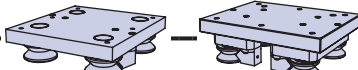
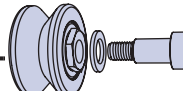
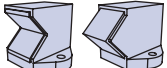
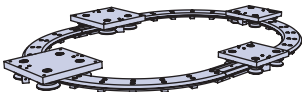
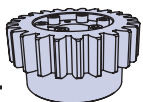
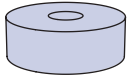
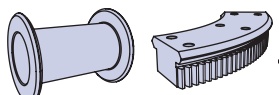
HDRT 重型圆环导轨与轨道系统



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介绍

The HepcoMotion HDRT combines the flexibility and function of our popular PRT ring track system with the size and strength of our HDS heavy duty slide system.

Internal and external V rings are available to $\text{Ø}1800\text{mm}$ for rotary applications, and track systems can be constructed to follow any path made up of curves and straights.

Hepco has many decades of experience in solving complex and precise motion problems. Please let our team of experts help you with your application.

All our products have the quality and backup you expect from Hepco, and 3D CAD data can be downloaded from our website www.HepcoMotion.com.

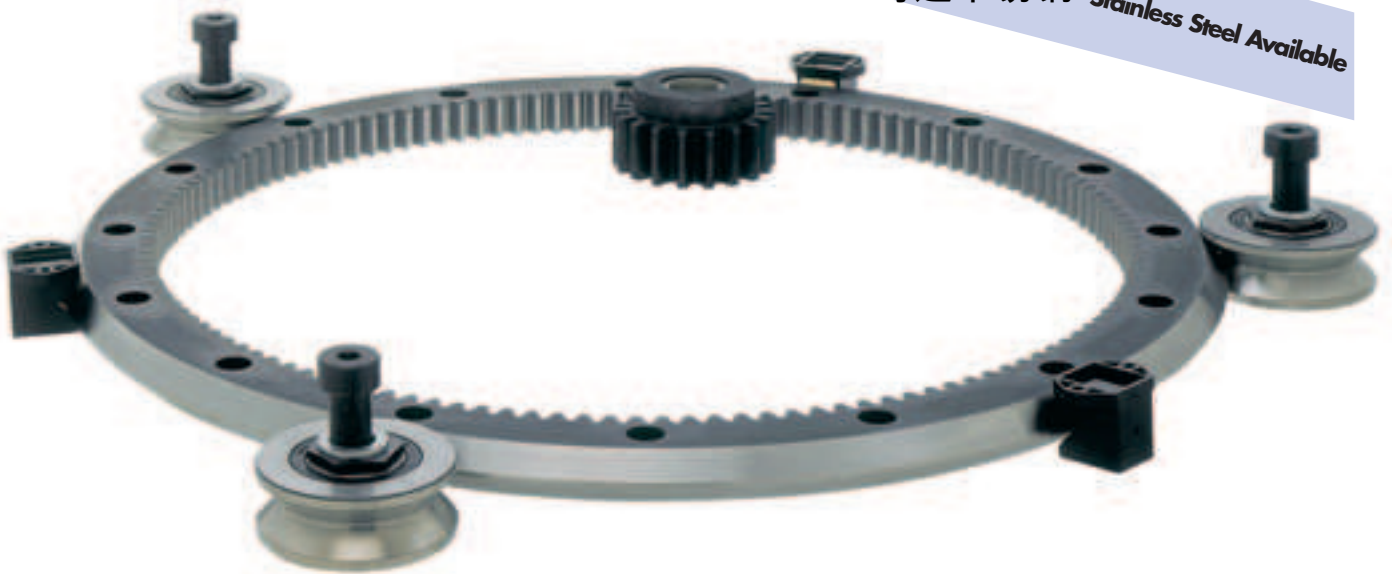
该HepcoMotion HDRT的功能结合了我们的最受欢迎的PRT环形轨道系统的灵活性与我们的HDS重型滑轨系统的高强度。

内部和外部的V型圆环是可以的，直径可达 $\text{Ø}1800\text{mm}$ ，广泛用于回转装置，HDRT导轨系统可以由曲线导轨和直线导轨组建各种环形。

Hepco公司有几十年解决复杂和精确的运动问题的经验。请让我们团队的专家帮助解答您与您的应用程序。

我们Hepco所有的产品都有预期的品质和备件，需要3D CAD数据可以从我们的网站下载 www.HepcoMotion.com

可选不锈钢 *Stainless Steel Available*



HDRT 优点

High load capacity: track carriages and rings can support loads to 40kN.

Broad range of sizes: rings and segments from $\text{Ø}512$ to 1656mm are standard. Any size up to $\text{Ø}1800$ can be made to order.

Tolerant of debris: due to Hepco's acclaimed V slide technology.

Fully adjustable: using eccentric bearing adjustment system.

Easy installation: Hepco's new style of bearing mounting makes installation simple, accurate and free from play.

Simple lubrication: Can be applied by new ring and bearing type lubricators.

Low maintenance: lubricators maximise life, with no re-lubrication required in many cases.

高负载能力：

轨道滑座和圆环导轨可以支持40KN的负载。

尺寸范围较广：

圆环及环段从直径 $\text{Ø}512$ 至 $\text{Ø}1656\text{mm}$ 是标准。最高达 $\text{Ø}1800$ 的任何尺寸可接受定做。

耐碎屑粉尘：

是由于hepco广受好评的V型滚轮导轨技术。

完全可调：

采用偏心轴承调节系统。

安装方便：

hepco新型V型滚轮轴承的安装使安装从发挥准确和自由

简单的润滑：

可以采用新的圆环和轴承式润滑器。

低维护：

润滑最大限度地提高使用寿命，在许多情况下，无需再润滑。

系统组成

Ring Systems

Seven sizes of ring are available, each in two precision grades plus stainless steel. These go together with three sizes of bearing and two lubricators. Rings with internal or external vees are available, as are gear cut rings and compatible pinions.

圆环导轨系统

七种圆环的尺寸可供选择，
每种圆环有两个精度等级和不锈钢标准。
这有三种规格的滚轮轴承和两种润滑器配套。
内部和外部的V型圆环是可以的，
因为圆环上一体加工了齿轮以及可以兼容的小齿轮。

Rings 6-10

- Precision ground for accuracy and concentricity.
- Hardened vee faces for maximum wear resistance.
- Versions with internal, external or opposing vees.
- Segments & gear cut option available.

圆环系统

- 精密研磨确保精确度和同心度
- 硬化的V型面有着最大的耐磨性
- 样式有内V型，外V型及对着的双V型
- 圆环段和圆环是否带齿为选项

Ring spacer 21

环型垫片

Rings may be fixed from above or below.
环型垫片
可以从上方或下方固定

Pinion 20

- MOD4 with nitride hardened teeth.
- Supplied with keyless locking bush for secure connection.

小齿轮

- 经淬火硬化的MOD4齿轮
- 配备免键胀紧套安全连接

Bearing - through hole fixing 14 & 20

- Double row bearing for precision & strength.
- Can be installed & removed without moving ring.
- 3 sizes: Ø64, 95 & 120. Load capacities up to 30kN each.
- Bolt lengths to suit plate thickness from 7 to 37mm.
- Concentric (fixed) or eccentric (adjustable) studs.

轴承 - 通孔固定型

- 双列轴承拥有精度和强度。
- 安装和取出无需移动圆环导轨。
- 3种尺寸64, 95和120, 单个负载最高达30kN
- 螺栓长度适合板厚7~37MM

Fixed centre carriage 12

- The economic choice for ring and uni-directional track systems.
- Two sizes with Ø64 or Ø95 bearings.

固定中心式滑座

- 环形定向导轨系统的经济选择。
- 两种尺寸Φ 64或Φ 95滚轮轴承。
- 同心（固定）或偏心（可调）螺栓

Lubricators 15

- Lubricate system - increasing load & life.
- Versions to fit ring or bearing assembly.
- Blind or through hole fixing.

润滑器

- 润滑导轨系统增加负载和寿命。
- 版本适合圆环导轨及滚轮轴承组件。
- 盲孔或通孔固定。

Pillar spacers 10

支柱垫片

Adjustable joint block 11

- Facilitates easy installation and adjustment of joints between straight & curved slides.

可调连接块

- 便于安装和调整直线导轨和曲线导轨的接头处。

系统组成

Track Systems

Double edged ring segments combine with straight slides to build open paths or closed circuits. Both left and right hand bends can be negotiated depending on the carriage selected. Straight sections over 4m will be made from more than one piece.

轨道系统

双V沿圆环导轨段结合直线导轨建立开放回路或闭环回路轨道。左，右方向的曲线可以根据所选择的滑座进行调整。
4米以上直线导轨将被由一件以上导轨拼接制成。

Bearing - blind hole fixing 14 & 20

- Double row bearing for precision & strength.
- Can be installed & removed without moving ring.
- 3 sizes: Ø64, 95 & 120. Load capacities up to 30kN each.
- Concentric (fixed) or eccentric (adjustable) studs.

轴承- 通孔固定型

- . 双列轴承拥有精度和强度。
- . 安装和取出无需移动圆环导轨。
- . 3种尺寸64, 95和120, 单个负载最高达30kN
- . 螺栓长度适合板厚7~37MM

Bogie carriage 13

- Negotiates 'S' bends and differing bend radii.
- Two sizes with Ø64 or Ø95 bearings.

转向滑座

- . 允许通过S形弯道和不同圆弧半径的轨道。
- . 两种尺寸Φ 64或Φ 95的轴承。

Plastic cover (not required with stainless steel version)

塑料盖板不需要用不锈钢的版本)

Back plate spacer 11

底板垫片

Straight slides 11

- Hardened vees, precision ground on all important faces.
- Soft central area allows customising.
- Up to 4m in one piece. Longer systems have butt joints.

直线导轨

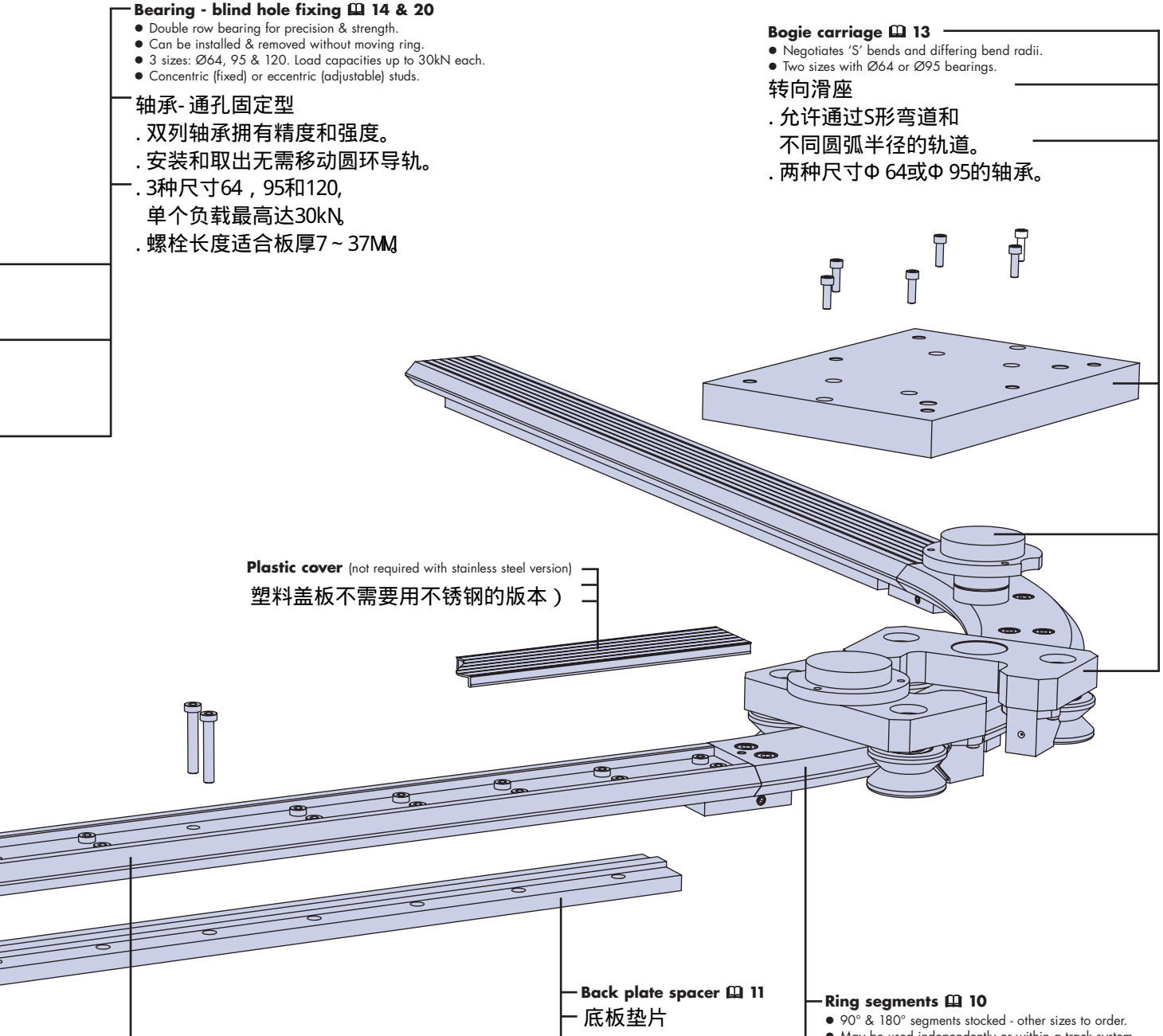
V型面经硬化，所有重要面经精密研磨。
相对软的轨道中心区域允许定制。
单条轨道最长达4M
更长的导轨系统需对接拼接。

Ring segments 10

- 90° & 180° segments stocked - other sizes to order.
- May be used independently or within a track system.

圆弧环段

90° 和180° 段库存 - 其他尺寸定做。
可以独立使用或在轨道系统内使用。



Application Examples 应用实例

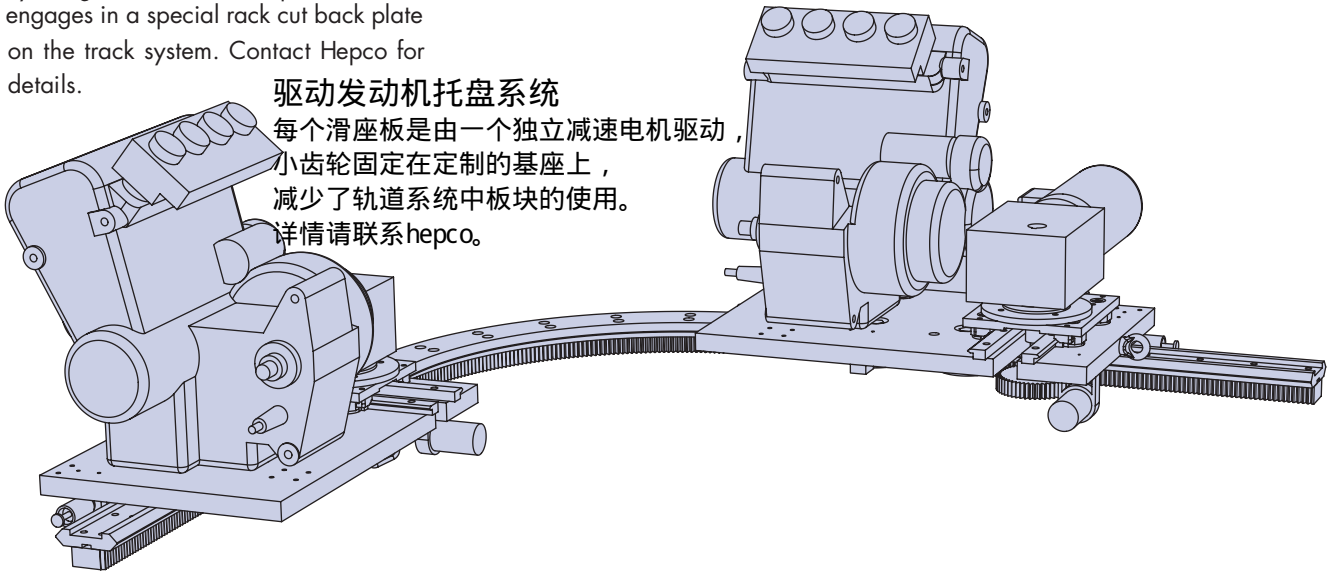
See HepcoMotion PRT catalogue for other applications and methods of driving.
参见hepcotion PRT目录的其他应用程序和驱动方法。

Driven pallet system for engines

Each carriage is independently driven by a geared motor & pinion which engages in a special rack cut back plate on the track system. Contact Hepco for details.

驱动发动机托盘系统

每个滑座板是由一个独立减速电机驱动，小齿轮固定在定制的基座上，减少了轨道系统中板块的使用。详情请联系hepco。

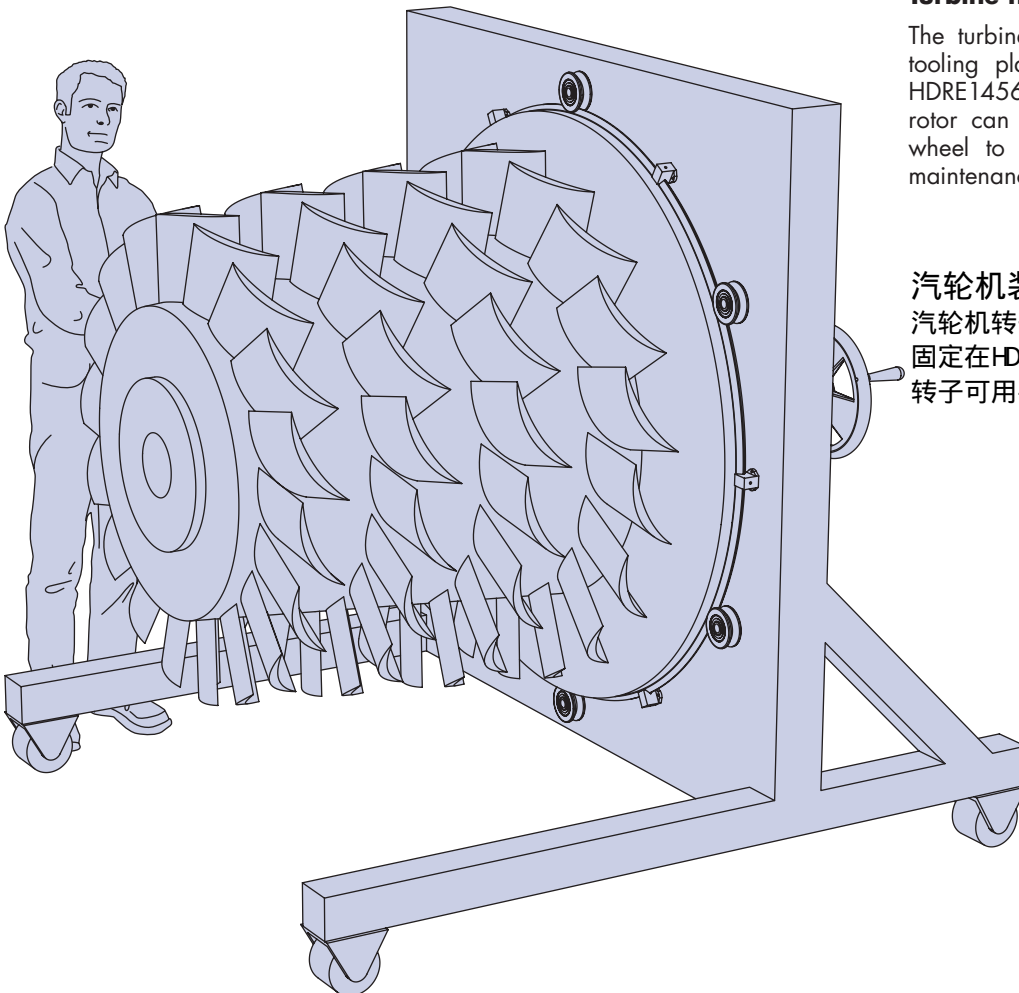


Turbine handling fixture

The turbine rotor is mounted on a tooling plate which is fixed to a HDRE1456G4 gear cut ring. The rotor can be turned with a hand-wheel to facilitate inspection and maintenance.

汽轮机装卸夹具

汽轮机转子安装在工装板上，固定在HDRE1456 G4带齿圆环导轨上。转子可用手轮转动便于检查和维修。



Application Examples 应用实例

See HepcoMotion PRT catalogue for other applications and methods of driving.

参见hepcomotion PRT目录的其他应用程序和驱动方法。

Spool handling unit

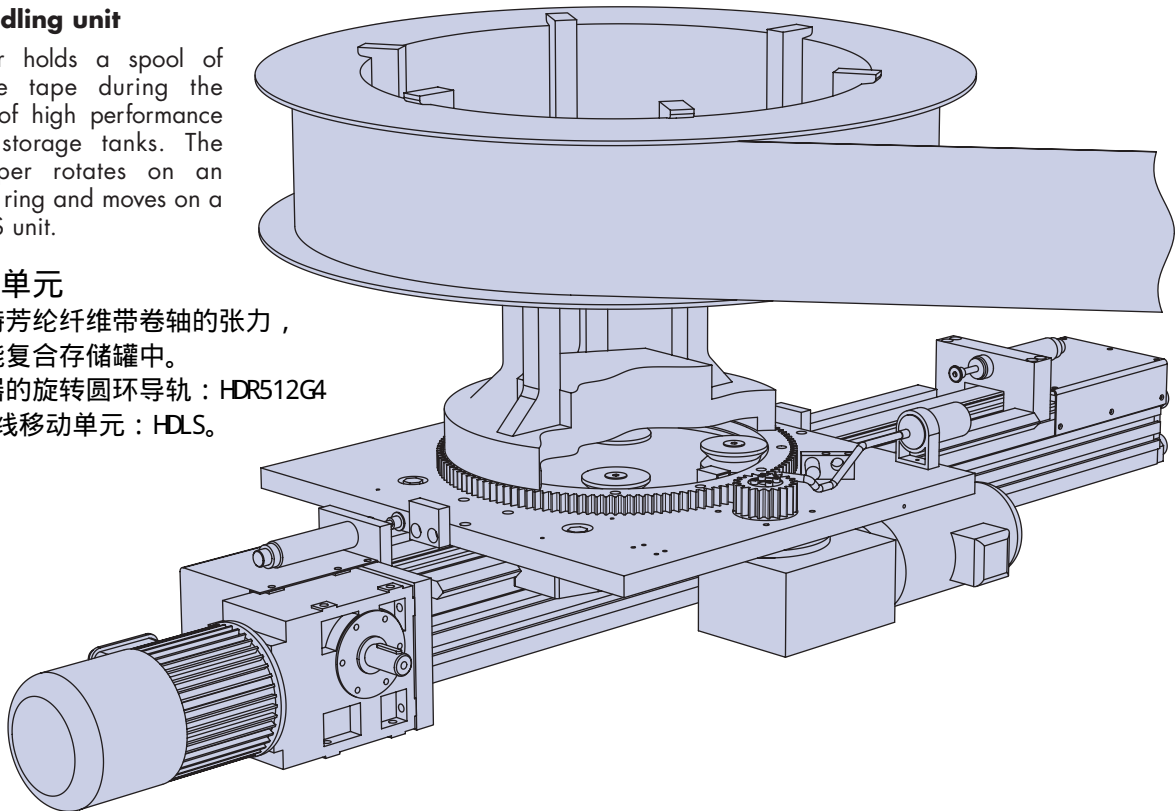
The gripper holds a spool of kevlar fibre tape during the production of high performance composite storage tanks. The spool gripper rotates on an HDR512G4 ring and moves on a Hepco HDLS unit.

卷轴操作单元

夹持器保持芳纶纤维带卷轴的张力，生产高性能复合存储罐中。

卷轴夹持器的旋转圆环导轨：HDR512G4

和Hepco直线移动单元：HDLS。



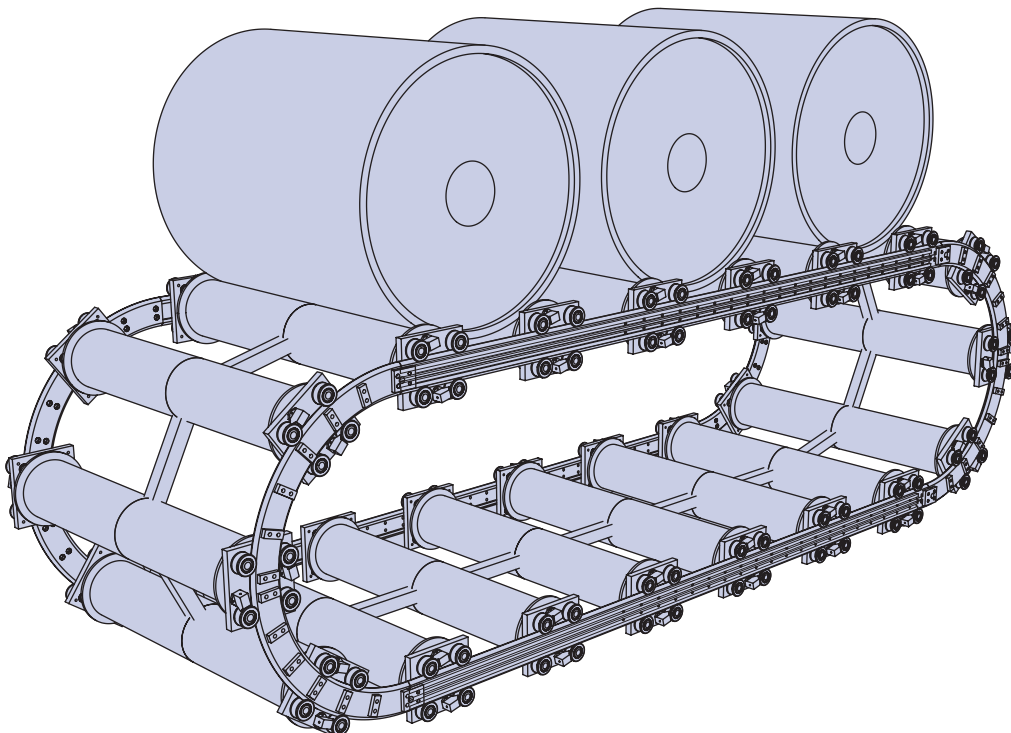
Transfer unit for paper rolls

Twin back-to-back oval tracks have FCP64 carriages joined with support rollers, with connecting links for driving. Contact Hepco for advice.

卷筒纸传送装置

双垂直并列的椭圆形轨道由FCP64滑座与支撑辊连接，由连杆驱动。

建议联络hepco。



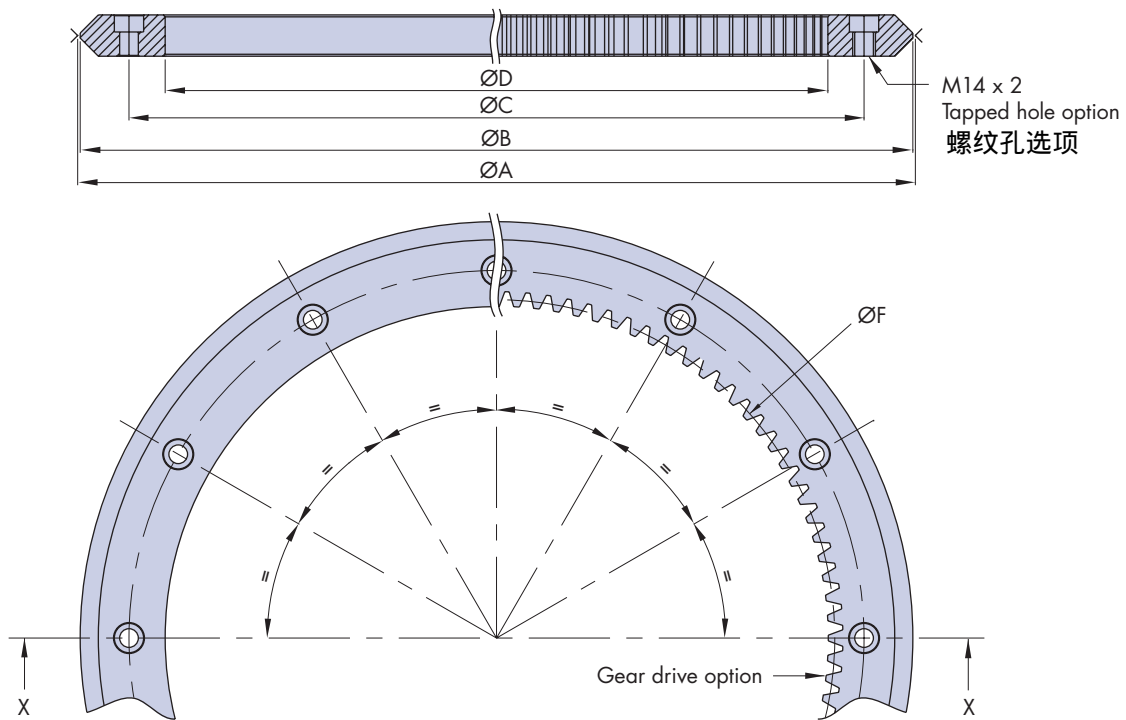
HDRE 圆弧导轨

HepcoMotion HDRE ring slides are made from high quality steel and have a hardened external V which provides an extremely durable running surface for the bearings.

A gear drive option is available where teeth are machined into the internal register of the slide ring. MOD 4 teeth are standard, with other sizes available on request. Standard drive pinions are detailed on page 20.

HepcoMotion HDRE圆环导轨
是由高质量钢材经硬化处理外V型面
提供给轴承一个非常耐用的运行表面

齿轮传动为可选项，
其中齿加工在内部与圆环导轨集成一体。
标准的MOD 4齿轮，
与其他尺寸可根据要求。
标准驱动小齿轮详见第20页。



| Part number 零件号 | A | B | C*2 | D | Number of holes 孔数 |
|--------------------|--------|------|------|-------------|-----------------------|
| HDRE512.... | 514.5 | 512 | 452 | 408 ±0.020 | 12 |
| HDRE640.... | 642.5 | 640 | 580 | 536 ±0.022 | 16 |
| HDRE768.... | 770.5 | 768 | 708 | 664 ±0.025 | 16 |
| HDRE896.... | 898.5 | 896 | 836 | 792 ±0.025 | 20 |
| HDRE1280.... | 1282.5 | 1280 | 1212 | 1144 ±0.033 | 28 |
| HDRE1456.... | 1458.5 | 1456 | 1380 | 1304 ±0.039 | 32 |
| HDRE1656.... | 1658.5 | 1656 | 1568 | 1480 ±0.039 | 40 |

Notes:

- Dimensions and tolerances refer to a ring bolted down to a flat, round register. Dimensions measured on an unmounted ring may be slightly different.
- The holes in the mounting surface must be drilled to within 0.5mm of true position to ensure alignment with the holes in the ring.

注释：

- 尺寸和公差是指一个圆环导轨固定在一平面，圆形集成。在未装配的圆环导轨测量的尺寸可能会略有不同。
- 在安装表面的孔必须钻孔，孔内正确位置确保在0.5mm，保证圆环孔的对准。

HDRE 圆弧导轨

The standard holes are counterbored to suit hex socket screws. Alternatively, the tapped hole option enables the ring slide to be bolted from below.

Ring slides are available in 3 precision grades, SS (Stainless Steel), P1 & P2. All grades are accurately ground on the 90° V faces and internal register. Grade P1 is also ground on the mounting face for best accuracy. The stainless steel version is ground on all surfaces.

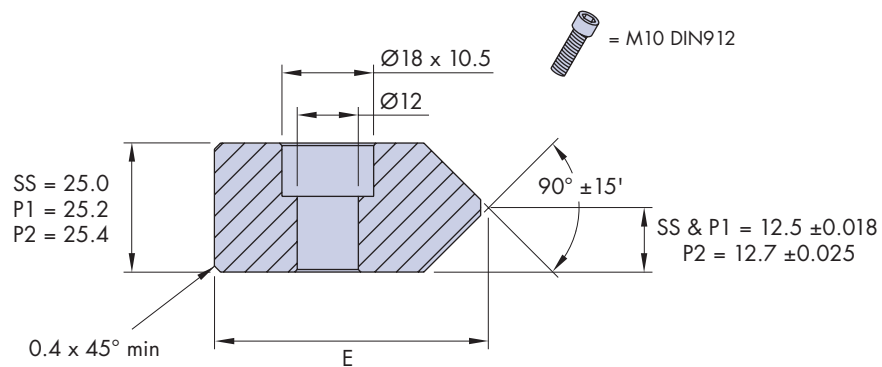
Ring spacers for use when mounting on a flat surface are detailed on page 21.

标准孔适合内六角螺钉。
另外，螺纹孔的选项使得圆环导轨将用螺栓从下面锁紧。

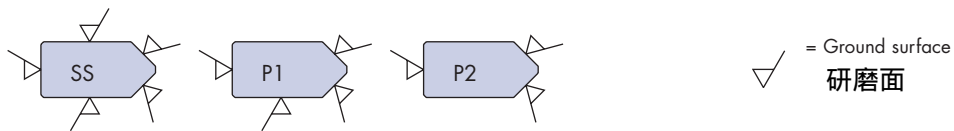
圆环导轨有3种精度等级，SS（不锈钢），P1和P2
所有精度都准确地90° V型面和内部与表面对齐。
P1为最佳精度等级也是研磨的安装面。
不锈钢版本是研磨所有表面。

使用环型垫片安装在一个平面上，详见第21页。

Ring cross section 环形截面

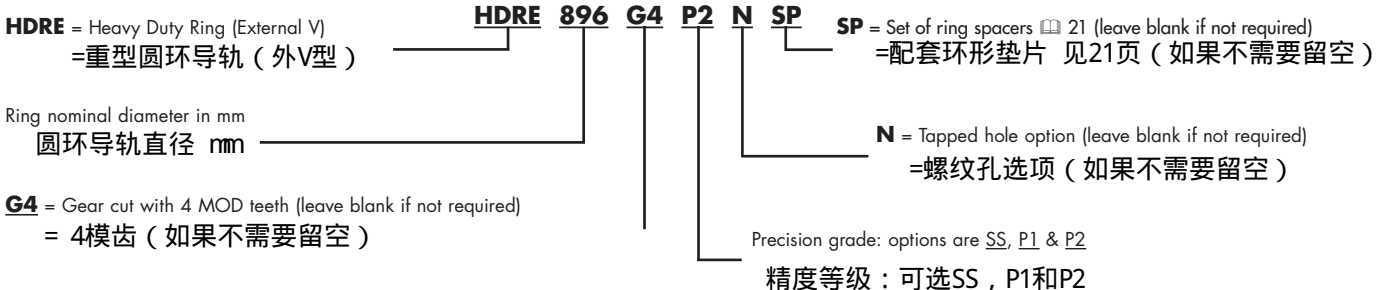


Available grades of slide 滑轨的可用等级



| | E | F | Gear tooth form 齿轮的齿形 | Number of teeth 齿数 | Ring weight (kg) 圆环轨道重量 (KG) |
|--|-------|------|---|-----------------------|---------------------------------|
| | 53.25 | 416 | MOD4 - 20° pressure angle Other tooth forms on request | 104 | 13 |
| | 53.25 | 544 | | 136 | 17 |
| | 53.25 | 672 | MOD4 - 20° 压力角 应要求提供的其他齿形 | 168 | 20 |
| | 53.25 | 800 | | 200 | 24 |
| | 69.25 | 1152 | | 288 | 47 |
| | 77.25 | 1312 | | 328 | 60 |
| | 89.25 | 1488 | | 372 | 80 |

Ordering Details 订购详情



HDRE 圆弧导轨

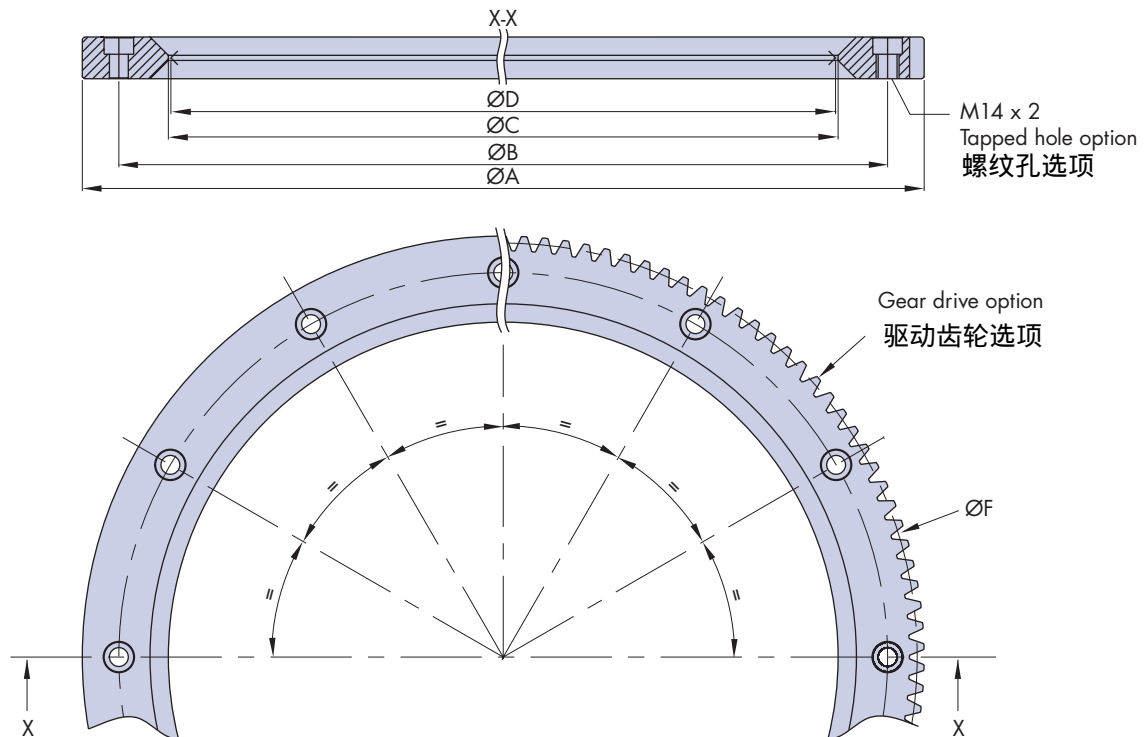
HepcoMotion HDR ring slides are made from high quality steel and have a hardened internal V, which provides an extremely durable running surface for the bearings.

A gear drive option is available where teeth are machined into the external register of the slide ring. MOD 4 teeth are standard with other sizes available on request. Standard drive pinions are detailed on page 20.

HepcoMotion HDRE圆环导轨

是由高质量钢材经硬化处理外V型面提供给轴承一个非常耐用的运行表面
齿轮传动为可选项，
其中齿加工在外部与圆环导轨集成一体。

标准的MOD 4齿轮，
与其他尺寸可根据要求。
标准驱动小齿轮详见第20页。



| Part number 零件编号 | A | B | C*2 | D | Number of holes 孔的数量 |
|---------------------|-------------|------|------|--------|-------------------------|
| HDR512.... | 512 ±0.022 | 468 | 408 | 405.5 | 12 |
| HDR640.... | 640 ±0.025 | 596 | 536 | 533.5 | 16 |
| HDR768.... | 768 ±0.025 | 724 | 664 | 661.5 | 16 |
| HDR896.... | 896 ±0.028 | 852 | 792 | 789.5 | 20 |
| HDR1280.... | 1280 ±0.039 | 1212 | 1144 | 1141.5 | 28 |
| HDR1456.... | 1456 ±0.039 | 1380 | 1304 | 1301.5 | 32 |
| HDR1656.... | 1656 ±0.046 | 1568 | 1480 | 1477.5 | 40 |

Notes:

- Dimensions and tolerances refer to a ring bolted down to a flat, round register. Dimensions measured on an unmounted ring may be slightly different.
- The holes in the mounting surface must be drilled to within 0.5mm of true position to ensure alignment with the holes in the ring.

注释：

- 尺寸和公差是指一个圆环导轨固定在一平面，圆形集成。在未装配的圆环导轨测量的尺寸可能会略有不同。
- 在安装表面的孔必须钻孔，孔内正确位置确保在0.5mm，保证圆环孔的对准。

HDRE 圆弧导轨

The standard holes are counterbored to suit hex socket screws. Alternatively, the tapped hole option enables the ring slide to be bolted from below.

Ring slides are available in 3 precision grades, SS (Stainless Steel), P1 & P2. All grades are accurately ground on the 90° V faces and external register. Grade P1 is also ground on the mounting face for best accuracy. The stainless steel version is ground on all surfaces.

Ring spacers for use when mounting on a flat surface are detailed on page 21.

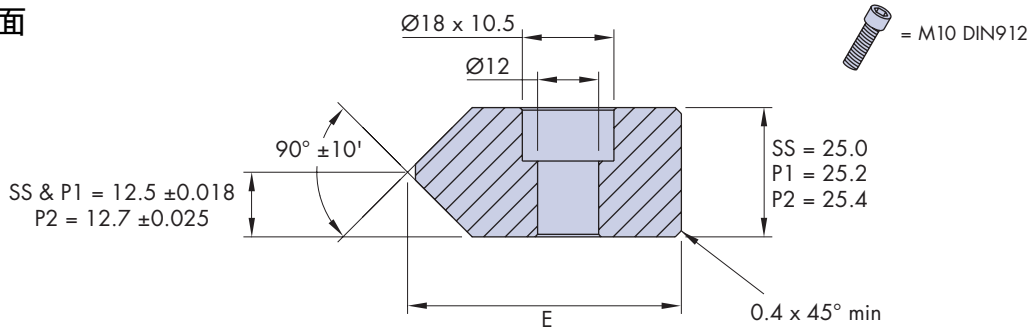
标准孔适合内六角螺钉。
另外，螺纹孔的选项使得
圆环导轨将用螺栓从下面锁紧。

圆环导轨有3种精度等级，SS（不锈钢），P1和P2
所有精度都准确地在90° V型面和内部与表面对齐。
P1为最佳精度等级也是研磨的安装面。
不锈钢版本是研磨所有表面。

使用环型垫片安装在
一个平面上，详见第21页。

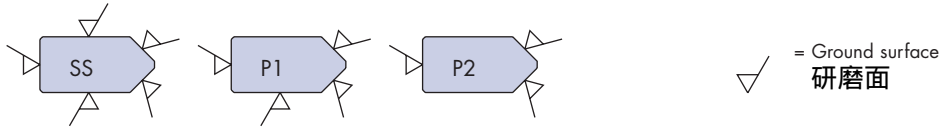
Ring cross section

环形截面



Available grades of slide

滑轨的可用等级



| | E | F | Gear tooth form 齿轮的齿形 | Number of teeth 齿数 | Ring weight (kg) 圆环轨道重量 (KG) |
|--|-------|------|---|-----------------------|---------------------------------|
| | 53.25 | 504 | MOD4 - 20° pressure angle Other tooth forms on request MOD4 - 20° 压力角 应要求提供的其他齿形 | 126 | 13 |
| | 53.25 | 632 | | 158 | 17 |
| | 53.25 | 760 | | 190 | 20 |
| | 53.25 | 888 | | 222 | 24 |
| | 69.25 | 1272 | | 318 | 47 |
| | 77.25 | 1448 | | 362 | 60 |
| | 89.25 | 1648 | | 412 | 80 |

Ordering Details 订购详情

HDR = Heavy Duty Ring (Internal V) = 重型圆环导轨 (内V型)

Ring nominal diameter in mm 圆环导轨直径 mm

G4 = Gear cut with 4 MOD teeth (leave blank if not required) = 4模齿 (如果不需要留空)

HDRE 896 G4 P2 N SP

SP = Set of ring spacers 见 21 (leave blank if not required) = 配套环形垫片 见21页 (如果不需要留空)

N = Tapped hole option (leave blank if not required) = 螺纹孔选项 (如果不需要留空)

Precision grade: options are SS, P1 & P2
精度等级：可选SS，P1和P2

HDRE 圆弧导轨

HepcoMotion HDRD ring slides are made from high quality steel and have very durable, hardened V faces.

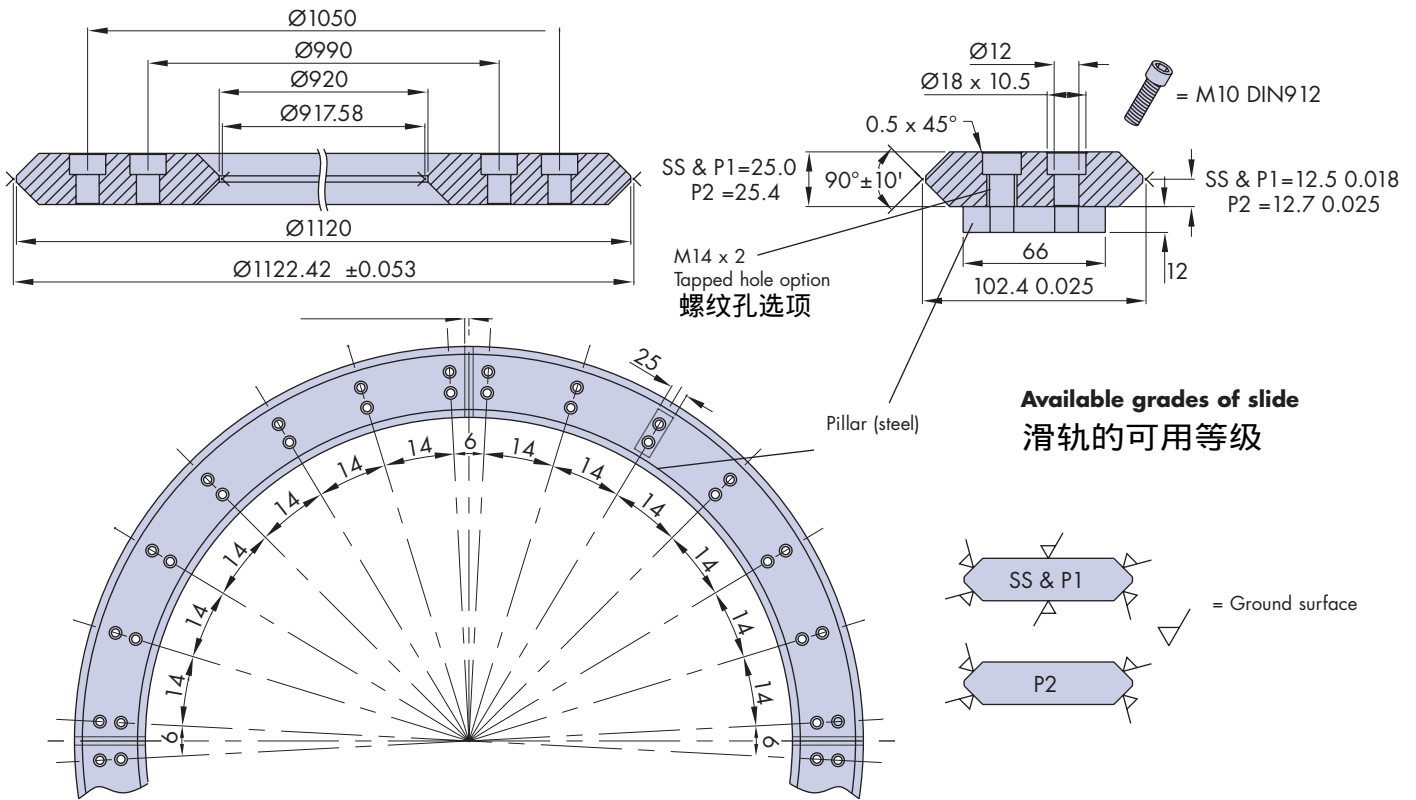
The slides are made as full 360° rings. 90° & 180°*3 segments are also stocked with other sizes made to order.

Three grades are available: SS (Stainless Steel), P1 and P2. P1 & SS are available for track systems 16-17.

HepcoMotion HDRD圆环导轨由优质钢制成，具有硬化V型轨道面，非常耐用。

圆环导轨被制成完整的360°，90° & 180°环段备有库存，其他尺寸定做。

有三个精度等级可供选择：SS（不锈钢），P2 和P1。P1和SS可用于环形轨道系统16-17。

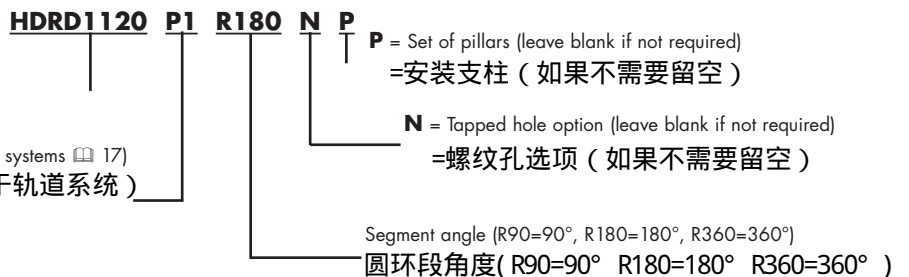


Ordering Details

订购详情

HDRD = Heavy Duty Double Edged Ring $\varnothing 1120$ mm
=重型双沿圆环导轨 $\varnothing 1120$ 毫米

Precision grade: options are SS, P1 & P2 (P2 not for track systems 17)
精度等级：选项是SS，P1 P2 & (P2不用于轨道系统)



Notes:

- Sizes and tolerances refer to a complete ring bolted to a flat surface.
- The holes in the mounting surface must be drilled to within 0.5mm of true position to ensure alignment with the holes in the ring.
- Standard segments will be less than 90° and 180° due to the cutting allowance. Full 90° and 180° segments can be supplied on request.
- Rings & segments ordered with the P option will be supplied with a set of matched pillars.
- A full HDRD 1120 ring weighs ~56kg.
- Segments for track systems will be modified to suit the joint block 16-17.

注释：

- 尺寸和公差是指一个完整的圆环用螺栓固定到一个平的表面。
- 在安装表面的孔必须钻孔，孔内正确位置确保在0.5mm，保证圆环孔的对准。
- 标准的圆环段将由于切割余量略小于90° " 和180° " ，完整的90度" 和180° " 圆环段可根据要求提供。
- 圆环和部分订购与P选项将提供一套相配的支柱。
- 一个完整的HDRD 1120 圆环约 56公斤重。
- 部分的轨道系统将被修改，以适应拼接模块16-17。

直线轨道

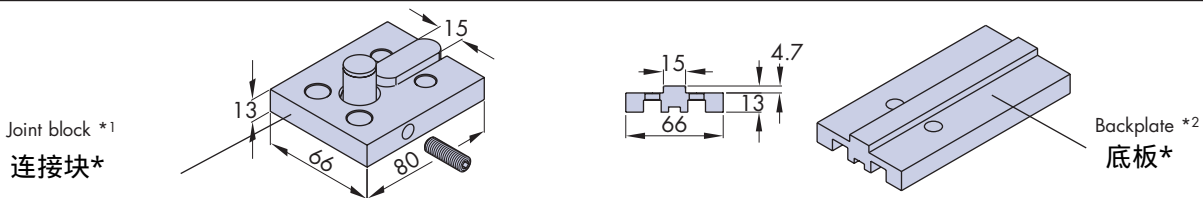
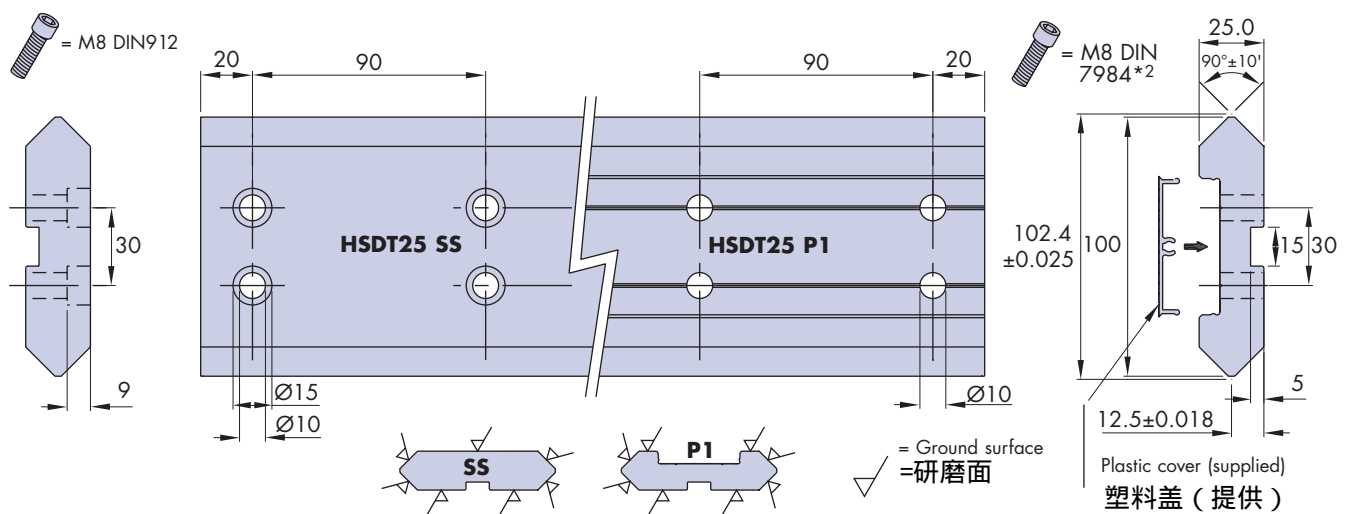
HepcoMotion HDRT track systems use slides from the popular HDS range, precision matched and modified for track system requirements. They are supplied together with back plates and joint blocks according to the system layout (see below and 16-17) unless otherwise specified.

Slides up to 4m are made in one piece. Unlimited lengths can be achieved by butting.

Note that the stainless steel version has a different profile without plastic cover.

HepcoMotion HDRT轨道系统使用滑轨是广受欢迎的HDS系列，精密匹配修改后满足轨道系统的要求。它们提供使用根据支承板和连接模块一起到系统设计（见下文和16-17），除非另有规定。

单条轨道最长为4M
无限的长度，可以对接实现。
请注意，
不锈钢版本有不同的轮廓没有塑料盖。



Ordering Details 订购详情

HSDT25 = Track System Straight Slide
= 直线轨道系统

HSDT25 P1 L1840

Precision grade: options are **SS** & **P1**
精度等级：选择SS&P1

Slide length **L** = 1840 mm
轨道长度

Notes

- The number of joint blocks required corresponds with the number of straight-to-curve joints in a track system (see 16-17).
- M8 low head cap screws are available from Hepco in the following lengths: 30mm (part no. FS8-30) for use without back plate & 40mm (part no. FS8-40) for use with back plate.
- Weight: HSDT25 P1 = 13.5kg/m, HSDT25 SS = 16.5kg/m.

注释：

- 连接模块的数量等于轨道系统直线与曲线的拼接点数目（见16-17）。
- M8平头螺钉的长度可选hepco：30mm（零件号fs8-30）无使用背板和40mm（零件号fs8-40）使用背板。
- 重量：HSDT25 P1=13.5公斤/米，HSDT25 SS=16.5公斤/米。

Fixed Centre Carriage 固定中心式滑座

The HepcoMotion Fixed Centre Carriage is for use on track systems with unidirectional bends of common radii and on HDRD rings & segments.

Used on track systems, slight play may be experienced in the transition zone between straight and curve. This is not detrimental to the system life.

Two sizes are available incorporating either Ø64 or higher load Ø95 bearings adjusted to suit the ring or track. Special length carriages can be supplied. Lubricators (见15) are optional.

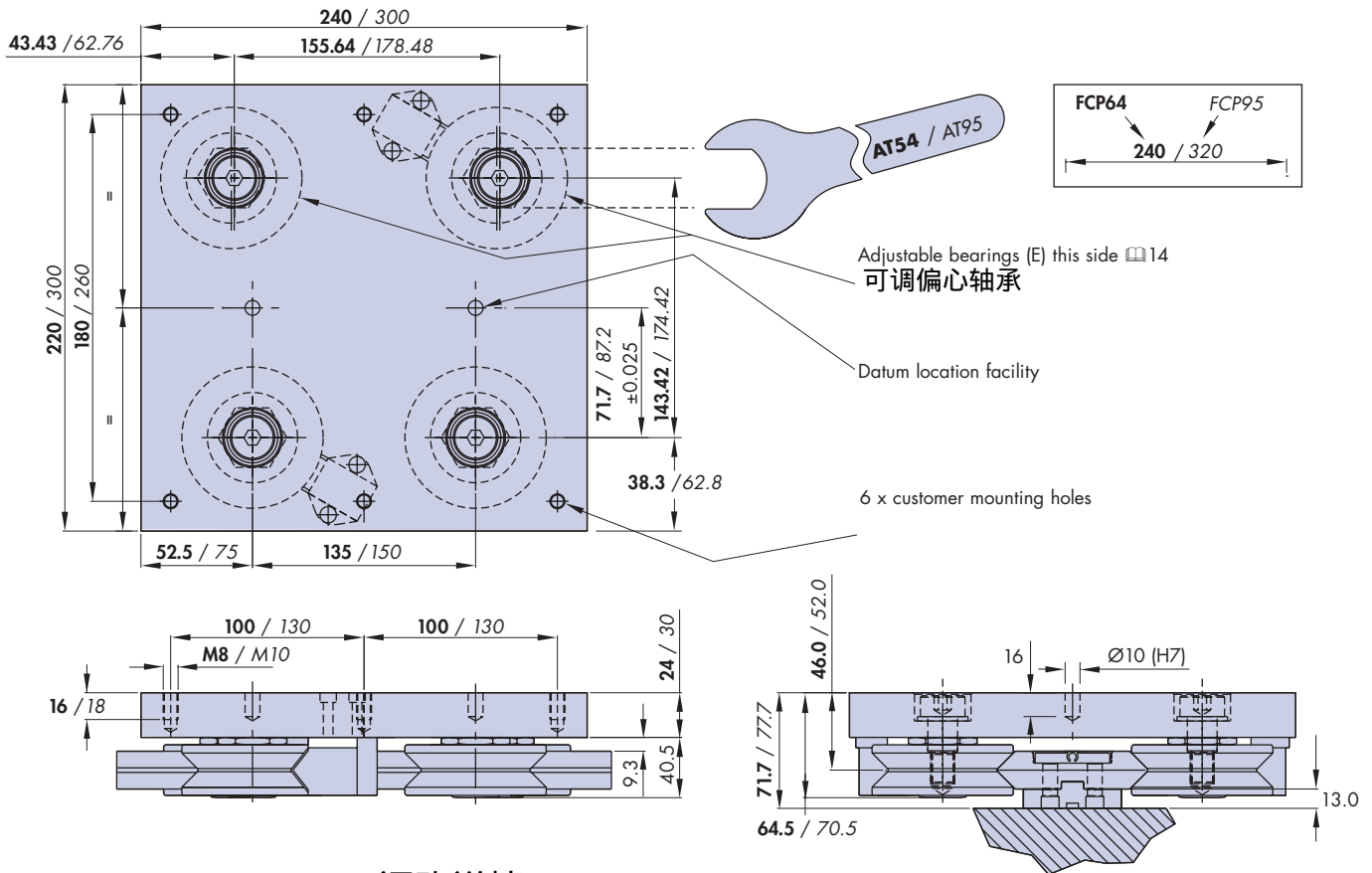
A corrosion resistant version is available with high performance USDA approved surface treatment to the aluminium carriage plate: Bearings and fasteners are stainless steel.

该HepcoMotion固定中心式滑座是在轨道系统相同半径的单向弯曲和HDRD圆环导轨与环段使用。

用于轨道系统轻微的抖动可能会发生在直线轨道和曲线轨道之间的过渡区。这是不影响对系统的使用寿命。

两种尺寸的轴承Φ 64或更高负载的Φ 95可供选择，结合轴承调节，以适应所对应的圆环或轨道。特殊长度滑座可以提供。润滑器（见15页面）是可选的。

可提供耐腐蚀及美国农业部批准表面处理版本的高性能铝合金滑座板：轴承和紧固件为不锈钢。



Ordering Details 订购详情

CR = Corrosion Resistant option (leave blank if not required)
=耐腐蚀选项（如果不要求留空）

CR

FCP

64

LB

FCP = Fixed Centre Carriage
=固定中心式滑座

Lubricator option (leave blank if not required)
润滑器选项（如果需要 留空）

Weight: FCP64 = 7kg; FCP95 = 13.5kg.

重量: FCP64 = 7kg; FCP95 = 13.5kg.

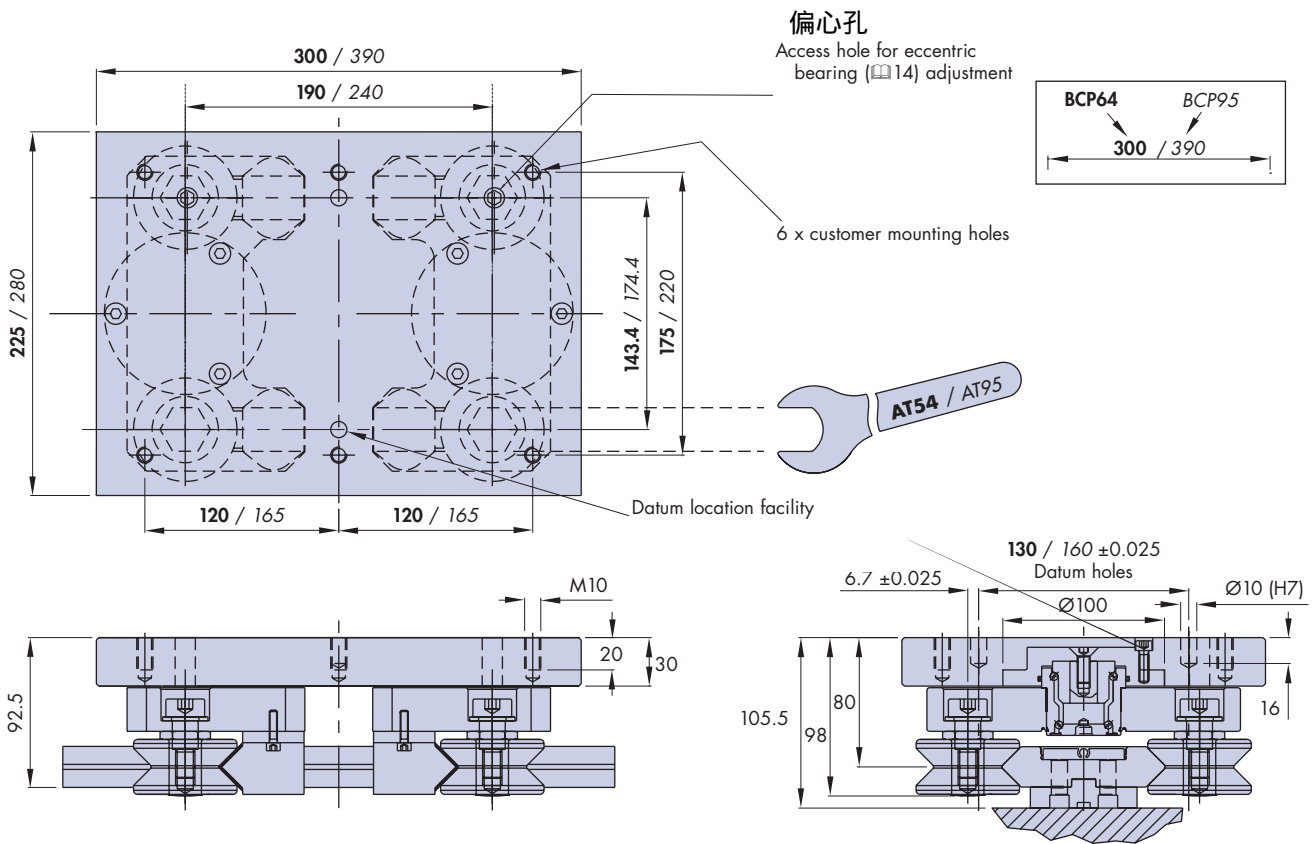
可转向滑座板

The HepcoMotion Bogie Carriage is used on tracks with "S" bends or bends of differing radii. Each bogie swivels on a special play free axial/radial ball bearing which is lubricated for life.

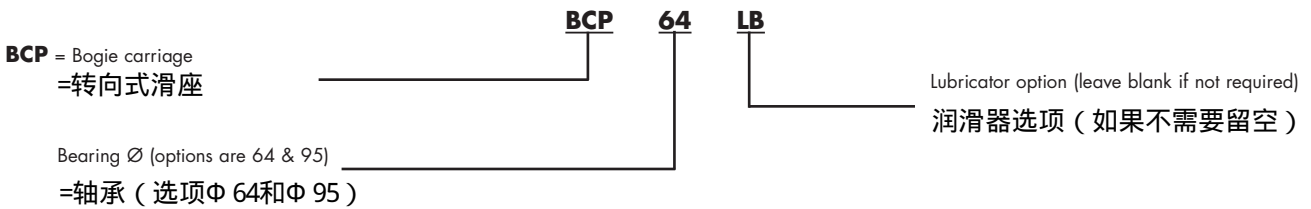
Two sizes of carriage are available incorporating either Ø64 or higher load Ø95 bearings. Carriage plates and bogie swivel plates are made from high strength aluminium alloy and are supplied assembled and adjusted to suit the track. Lubricators (15) are optional.

hepcomotion可转向滑座上使用在S曲线轨道或不同半径的弯曲轨道。在一个特殊的自由发挥的轴向/径向滚珠轴承，永久润滑每个转向架旋转。

可用两种尺寸的滚珠轴承Φ 64或更高的负载Φ 95轴承配套滑座。滑座板板、转向架回转板是高强度铝合金提供组装和调整以适应导轨系统。润滑器（15）是可选的。



Ordering Details 订购详情



Notes

- 1 Special size carriages are available on request.
- 2 Weight: BCP64 = 12kg; BCP95 = 19kg.

注释：

1. 特殊尺寸滑座可根据要求定制。
2. 重量：BCP64 = 12kg；BCP95 = 19kg。

滚轮轴承

HepcoMotion HJR bearings are available in two sizes; Ø64 and Ø95mm. Both use double row ball bearings and provide a high axial and radial load capacity. Additionally, there is a higher load Ø120 bearing, see 20.

The design allows for easy assembly and any bearing can be removed from a system with a single screw.

Each bearing has a chemically blackened, high tensile steel screw and bush and is available in concentric and eccentric (adjustable) forms. Both sizes are available with either a blind or through-hole fixing. Stainless steel versions are available.

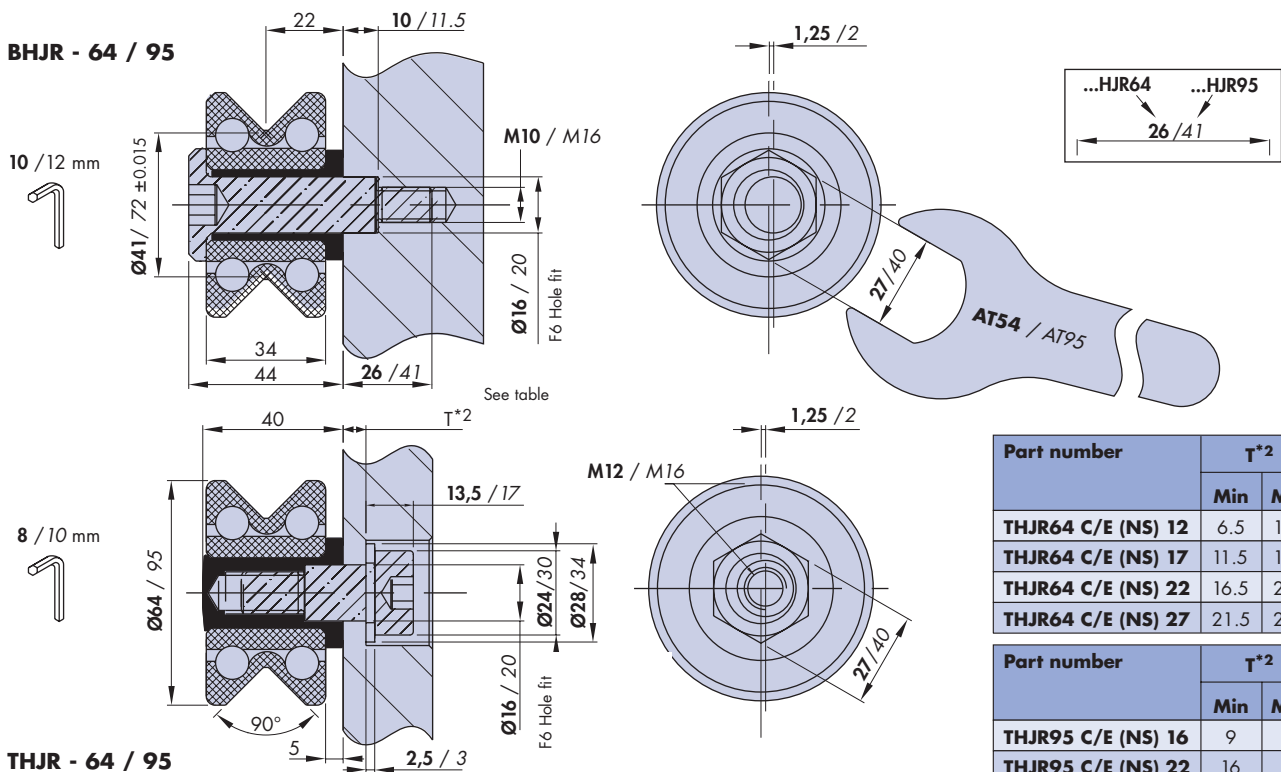
HepcoMotion HJR轴承

有两种尺寸：Φ64和Φ95毫米。使用双列球轴承提供了强大的轴向和径向负荷能力。

此外，有一个更高的负载Φ120轴承，见20。

该设计可以很容易地组装和拆下轴承，用系统中的单个螺钉即可。

每个滚轮轴承有经化学发黑处理，高强度钢螺杆和衬套可用于同心和偏心（可调）形式。两种尺寸可选任何一种盲孔或通孔固定形式。可选不锈钢版本。



Ordering Details

订购详情

SS = Stainless Steel option (leave blank if not required)
= 不锈钢选项 (如果不需要留空)

Fixing type: **THJR** = Through hole **BHJR** = Blind hole
固定形式: =THJR 通孔, BHJR 盲孔

Bearing diameter (options are 64 & 95)
轴承直径 (可选64和95)

SS THJR 64 C NS 17 Plate thickness - see note 2 & table above. Leave blank for BHJR
板厚度-见附注2及以上表格。BHJR 留空

NS = Nitrile rubber seal *1
= 丁腈橡胶密封

Journal type: **E** = Eccentric **C** = Concentric
类型: E = 偏心, C = 同心

Notes

- Nitrile rubber seals are standard on Ø95 bearings. Omit "NS" from order code if a steel shield is required on the Ø64 bearing.
- For THJR bearings, the part number must be selected to suit the required plate thickness, T. Choose from the table above right.
- Approx. weights of the bearing assemblies are: HJR64 = 650g, HJR95 = 1450g.

注释

- 丁腈橡胶密封是Φ95轴承标准。如果Φ64轴承需要省略NS从订购代码选择钢片密封型。
- THJR轴承零件号必须选择适合所需的板的厚度，从上表格中选择正确的T值。
- 滚轮轴承的大约重量：
HJR64 = 650g, HJR95 = 1450g。

润滑器

HepcoMotion Lubricators are made from impact resistant plastic and house a sprung oil impregnated felt wiper for low friction application of lubricant. This results in increased load and life.

The ring type lubricator is for individual rings or segments. The bearing type lubricator can be used in all systems but is specifically intended for Track Systems.

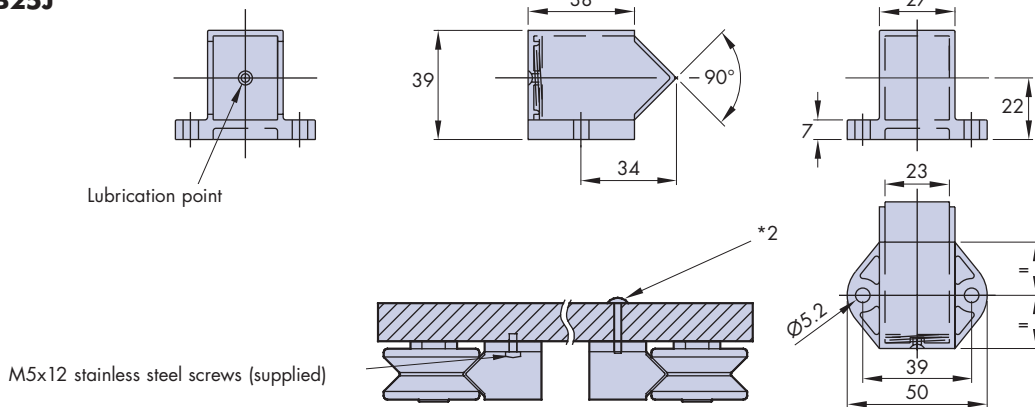
HepcoMotion 润滑器是由耐冲击塑料制成的外壳，弹簧浸油毛毡刮刷的润滑器，低摩擦的应用。

这会导致增加的负荷和寿命。环型润滑器是用于个别圆环导轨或圆环导轨段。

轴承类型润滑器可以在所有系统中使用，也有专门为轨道系统。

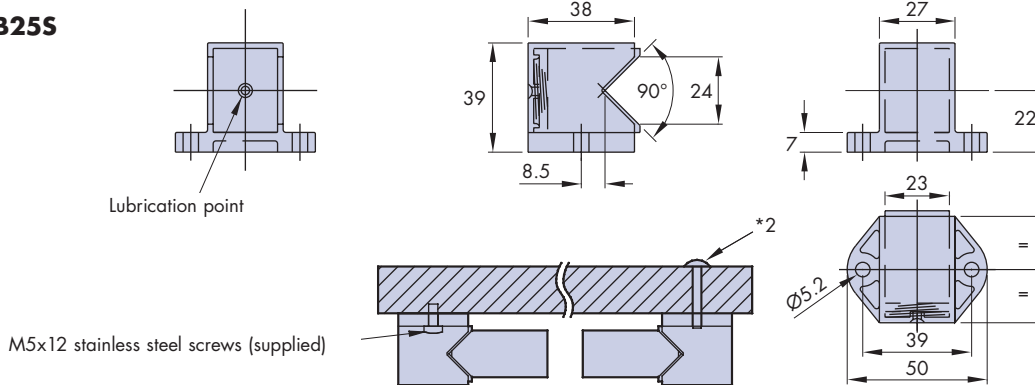
Bearing Lubricator 轴承润滑器

HDLB25J



Ring Lubricator 圆环轨道润滑器

HDLB25S



Ordering Details 订购详情

HDLB25 = Heavy duty lubricator
= 重型润滑器

HDLB25 J

J = Bearing lubricator / **S** = Ring lubricator
J = 轴承润滑器, **S** = 圆环导轨润滑器

Notes

- Lubrication interval depends on length of stroke, duty and environment. Replenish lubricant as necessary using a 68 viscosity oil.
- For through hole fixing, tap the Ø5.2 holes in the lubricator M6.
- Weight: HDLB25S = 45g, HDLB25J = 50g

注释：

- 润滑间隔取决于行程长度，负载和环境。补充润滑油必要时使用粘度为68度的润滑油。
- 通孔固定，注油器孔为M6，用5.2丝锥。
- 重量：HDLB25S = 45g, HDLB25J = 50g

轨道系统

HepcoMotion HDRT Track Systems combine straight slides and ring segments to form an almost limitless variety of open or closed circuits. The slides and segments are available in either P1 ground grade or fully ground stainless steel.

Any number of carriages can be accommodated, either fixed centre type for track systems with unidirectional bends of common radii, or bogie type carriages which can also run around 's' bends and bends of differing radii. A unique facility for easy alignment of straight slide to curve is incorporated within the joint blocks.

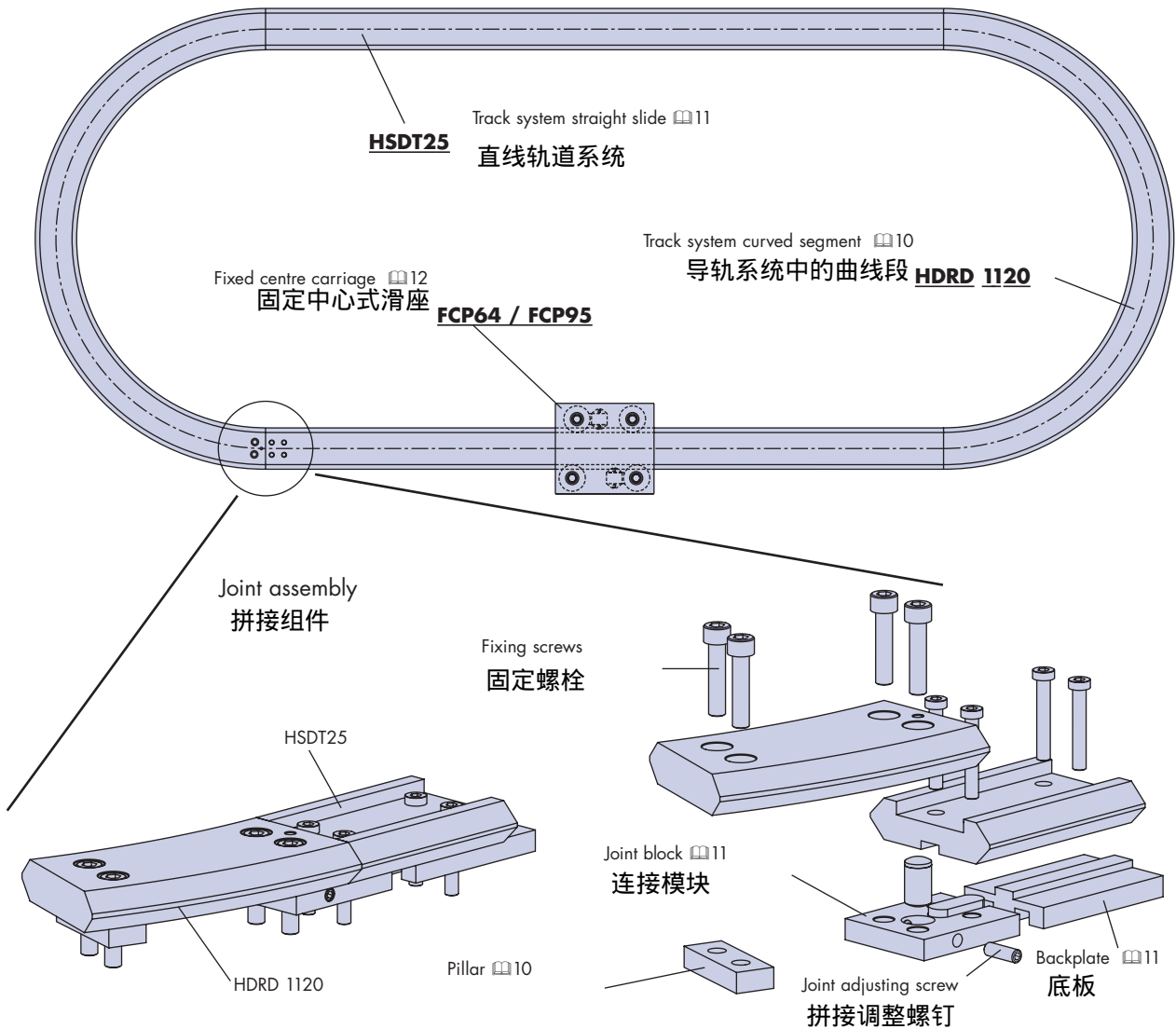
A variety of drive methods can be used, see 4-5 plus other examples which are shown in the HepcoMotion PRT Ring Slide catalogue.

HepcoMotion HDRT轨道系统结合直线导轨和圆环导轨形成一个几乎无限多种开环或闭环回路轨道系统。

环导轨和环段要么是P1级别或不锈钢级别。任何数量滑座都可以，无论是轨道系统是共同半径的单向弯道固定中心型，或转向式滑座也可以运行在S弯道和不同半径的弯道。

独特的设计使直线导轨曲线导轨很容易在连接模块内部对准。

多种驱动方法可用，参考HepcoMotion PRT 环形导轨4-5页面和其他目录的例子。



Notes

1 With the fixed centre carriage, some slight play develops as each pair of opposing bearings traverses the join between straight and curve. This is rarely an issue in use.

注释：

1. 固定中心式滑座，一些小间隙发生在每对轴承穿过的直线和曲线拼接之间。这很少出现问题。

轨道系统

Installation Procedure

HepcoMotion Track Systems are supplied in sections ready for installation, marked with a system reference number and sequence number. All sections should be assembled and clamped in position as a complete circuit prior to drilling through all holes.

Setting of joints should be carried out using the joint block alignment facility provided, ensuring that both jacking screws are subsequently locked and all curved segment fixing screws are tightened. A final stoning of the slide V faces is necessary to ensure smooth travel across the joints.

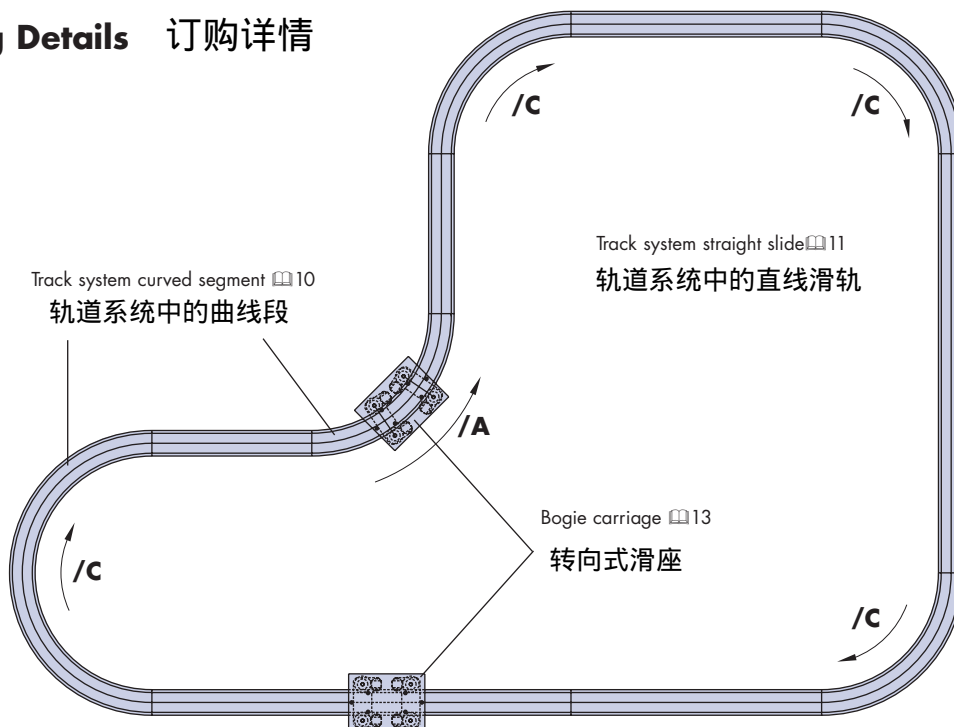
安装步骤

HepcoMotion轨道系统供货时在库存段和安装段都标有一个系统参考号码和序列号。

所有部件应被组装和夹紧在工作台位置上通过所有的钻孔来完整的轨道回路。

装配拼接点应使用所提供的对准模块，确保这两个顶紧螺丝随后锁定所有曲线段拧紧固定螺丝。
轨道V型面的最后一个打磨是必要的，以确保整个节点顺利通过。

Ordering Details 订购详情



Please list part numbers of ring segments and straight slides in a clockwise sequence beginning at any point on the track system. Curved segments should be designated with a suffix "C" for a clockwise bend or an "A" for an anticlockwise bend.

Backplates, pillars and joint blocks are included unless "unmounted" is stated.

Final item should be quantity and part number of carriages required.

请列出环段的零件号
直先轨道以顺时针顺序开始在轨道系统上的任何一点。

曲线段应指定一个后缀，下一个顺时针方向曲线为C，A为逆时针曲线。

背板，支柱和拼接模块，包括标明是否有装配。

最后一个项目应该是必需的滑座数量和零件号。

订购示例

Ordering Example 16

- | | | | | |
|-----|------------------------------|--------------------------|---|---------|
| (1) | HDRD 1120 P1 R180 / C | clockwise curved segment | / | 顺时针曲线段 |
| (2) | HSDT25 P1 L1500 | straight slide | / | 直线轨道 |
| (3) | HDRD 1120 P1 R180 / C | clockwise curved segment | / | 顺时针曲线段 |
| (4) | HSDT25 P1 L1500 | straight slide | / | 直线轨道 |
| (5) | 1 x FCP 95 LB | fixed centre carriage | / | 固定中心式滑座 |

Load Capacity & Life

The load capacity and life of systems will be determined by many factors including the ring size, the size and number of bearings, the presence of lubrication, the size and direction of loads, the speed of operation and the length of the path travelled.

It is usual to run systems at loads well below the maximum to prolong life, which can be calculated using the methods below.

For calculation purposes, systems fall into two categories: those where a carriage runs on a ring or track, and those where a ring is captivated in a number of bearings.

Wherever possible, systems should be lubricated using Hepco lubricators. This will greatly extend life.

承载能力 & 寿命

承载能力的系统和寿命会受到许多因素影响，包括：圆环的大小，滚轮轴承的规格和数量，是否使用润滑油，载荷的大小和方向，操作的速度和轨道的运行长度来确定。

系统通常运行在低于系统最大载荷来延长使用寿命，可以使用下面的公式计算。

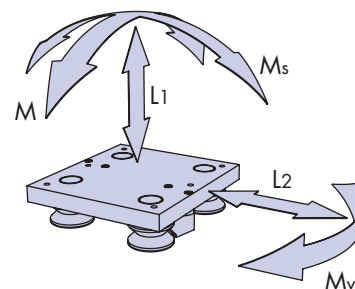
为计算方便，系统分为两类：哪些是滑座在圆环导轨或直线轨道上运行，和哪些是圆环导轨被若干个滚轮轴承围绕着。

在任何环境可能的地方，应使用hepco润滑器润滑系统。这将大大延长寿命。

Systems with carriages 滑座系统

The load on each carriage should be resolved into the direct and moment load components shown in the diagram.

每个滑座的载荷，被分解为直接作用在负载组件上的力矩如图所示。



| Carriage 滑座 | Maximum load capacity 最大负载能力 | | | | | Basic life 基本寿命 Bl (km) |
|----------------|---------------------------------|-------|--------------------------------|------|------|-------------------------------|
| | Direct loads (N) 直接负载(N) | | Moment loads (Nm) 力矩载荷 (Nm) | | | |
| | L1 | L2 | M | Mv | Ms | |
| FCP 64 | 10000 | 16000 | 700 | 1160 | 440 | 300 |
| FCP 95 | 28000 | 40000 | 2290 | 3280 | 1230 | 300 |
| BCP 64 | 10000 | 10000 | 950 | 950 | 440 | 300 |
| BCP 95 | 14000 | 13000 | 1680 | 1560 | 550 | 2000 |

Load capacities apply to lubricated systems. For stainless steel systems loads are 25% lower. Contact Hepco for load and life of unlubricated systems.

负载能力，适用于润滑系统。
不锈钢系统负载降低25%
负载和润滑系统的寿命，咨询hepco。

To determine life, first calculate the load factor Lf using the equation below, then go to next page.
准确的寿命，首先计算负载因素，使用下面的计算公式，然后转到下一页。

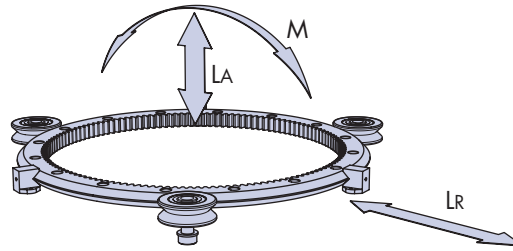
$$L_f = \frac{L_1}{L_{1(max)}} + \frac{L_2}{L_{2(max)}} + \frac{M_s}{M_{s(max)}} + \frac{M_v}{M_{v(max)}} + \frac{M}{M_{(max)}} \leq 1$$

Systems with rings in bearings

It is usual to space bearings equally around the ring *2. When calculating the life, the load should be resolved into the direct load components LA and LR and the moment load component M (see diagram on next page).

圆环导轨系统的轴承

通常是以轴承绕了圆环的圈数来计算寿命，负载应被分解为直接负载LA和力矩荷载LR M（见下页图）。



| Bearing 轴承 | Number of equally spaced bearings 间隔相同的轴承数量 | Max load capacity 最大负载能力 | | | Basic life 基本寿命 Bl (km) |
|-------------------|--|-----------------------------|--------|------------|-------------------------------|
| | | LA (N) | LR (N) | M (Nm) | |
| BHJR64 & THJR64 | 3 | 7200 | 7000 | 1500 x Øc* | 300 |
| | 4 | 9000 | 8000 | 1875 x Øc* | |
| | Each additional 1 每增加1个 | 1800 | 2000 | 375 x Øc* | |
| BHJR95 & THJR95 | 3 | 20000 | 17500 | 4200 x Øc* | 300 |
| | 4 | 25000 | 20000 | 5250 x Øc* | |
| | Each additional 1 每增加1个 | 5000 | 5000 | 1050 x Øc* | |
| BHJR120 & THJR120 | 3 | 30000 | 26000 | 6300 x Øc* | 300 |
| | 4 | 37500 | 30000 | 7875 x Øc* | |
| | Each additional 1 每增加1个 | 7500 | 7500 | 1575 x Øc* | |

Load capacities apply to lubricated systems. For stainless steel systems loads are 25% lower. Contact Hepco for load and life of unlubricated systems.

负载能力，适用于润滑系统。
不锈钢系统负载降低25%
负载和润滑系统的寿命，咨询hepco。

To determine life, first calculate the load factor Lf using the equation below.
准确的寿命，首先计算负载因素，使用下面的计算公式

$$L_f = \frac{L_A}{L_{A(max)}} + \frac{L_R}{L_{R(max)}} + \frac{M}{M_{(max)}} \leq 1$$

The life is then determined using the equation below.
然后使用下面的公式计算准确的使用寿命。

$$\text{System life (km)} = \frac{B_L}{(0.04 + 0.96L_f)^3}$$

Notes

- 1 When calculating the loads, ensure that centrifugal loading is included.
- 2 In some applications where the bearings rotate with the load, it may be beneficial to distribute the bearings unequally around the ring. Contact Hepco for application advice.

注释：

- 1. 计算荷载时，确保包含了离心载荷。
- 2. 一些应用中，轴承旋转负载有利于分布间距不同轴承的在圆环周围。咨询Hepco应用建议。

小齿轮

The HepcoMotion HP4X24 pinion is compatible with HDRT gear cut rings 6-9. It has 24 MOD 4 teeth with 20° pressure angle and is made to ISO 1328 grade 10. The teeth are nitride hardened for durability. Other sizes are possible.

The pinion is supplied with a keyless locking bush which allows it to be securely fitted to a h8 toleranced shaft.

The stainless steel version has part number SSHP4X24. The teeth are unhardened.

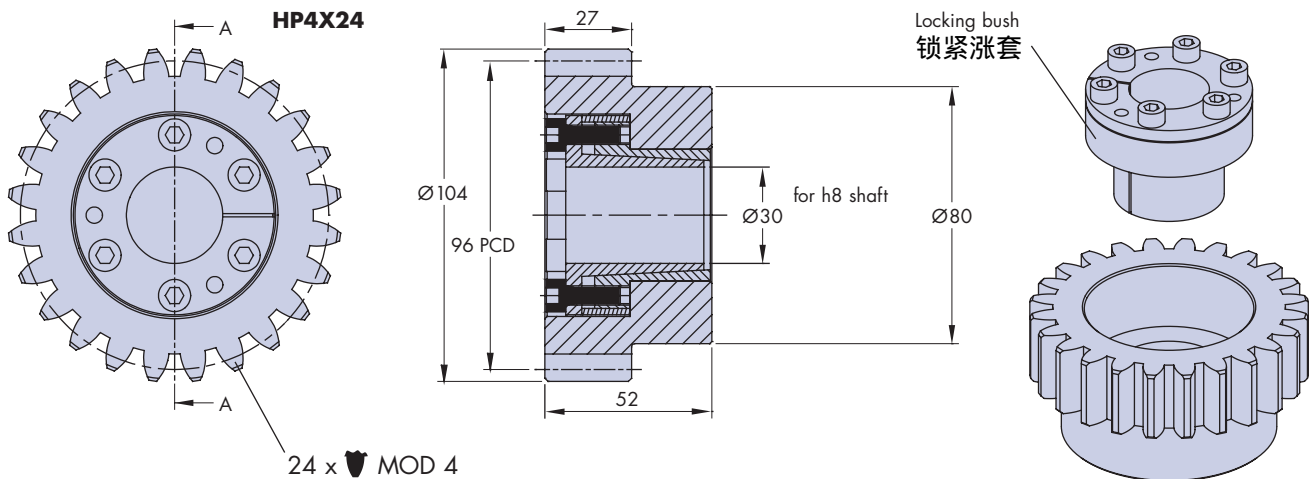
For best performance, the pinion and ring gear should be lubricated.

HepcoMotion HP24齿轮与HDRT24带齿的圆环导轨, 4模数的齿兼容, 压力角20° 是ISO 1328级10。硬化处理的齿轮超强耐用。其他尺寸也是可以定制的。

小齿轮配备一个免键涨套这使得它牢固地安装到H8公差光轴上。

不锈钢版本可以提供, 零件号SSHP4X24。齿面未硬化处理。

为了获得最佳性能, 小齿轮和圆环导轨齿轮应当使用润滑。



Higher Load Bearing

In addition to the bearings on 14, HepcoMotion also offers larger HJR120 bearings with 50% greater load capacity than the HJR95s.

They are wider than the Ø64 and Ø95 bearings, so system heights are different. For system lubrication, alternative lubricator designs HDLB33J (for bearings) or HDLB33S (for rings) should be specified. Contact Hepco for details.

Stainless steel versions are prefixed SS.

高载荷轴承

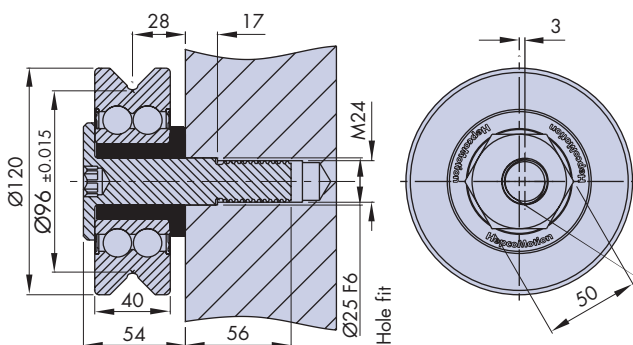
除了HepcoMotion上面介绍到的轴承, 还提供更大负载的HJR120轴承, 具有比HJR95s大50%的负载能力。

HJR120轴承比Ø64和Ø95轴承更宽, 所以系统的高度也是不同的。
对于系统的润滑, 润滑器的替代设计HDLB33J (用于轴承) 或HDLB33S (圆环导轨), 应符合规定。
联系商Hepco了解详细信息。

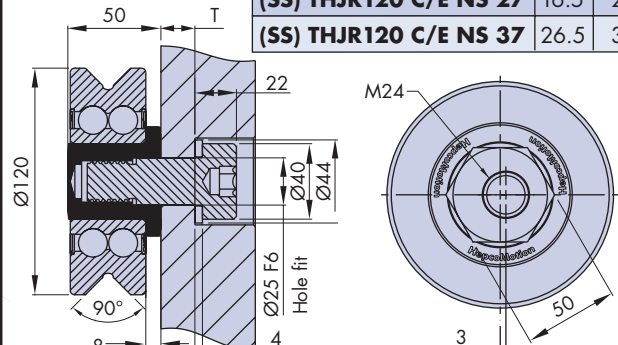
不锈钢版本的型号前加SS。

Blind hole fixing

(SS) BHJR120 C/E NS



Through hole fixing



| Part number 零件号 | T | |
|------------------------|------|-----|
| | Min | Max |
| (SS) THJR120 C/E NS 17 | 6.5 | 17 |
| (SS) THJR120 C/E NS 27 | 16.5 | 27 |
| (SS) THJR120 C/E NS 37 | 26.5 | 37 |

环形垫片

HepcoMotion HDR / HDRE Rings require spacers to lift them off the mounting surface in order to clear the Bearings. If preferred, customers may provide a spacer profile machined into their own structure.

Ring Spacers are made from steel or stainless steel, matched as a set to go with the Ring / Bearing combination specified. To order, just add -SP to the ring part number (e.g. 7&9).

HepcoMotion HDR / HDRE圆环导轨

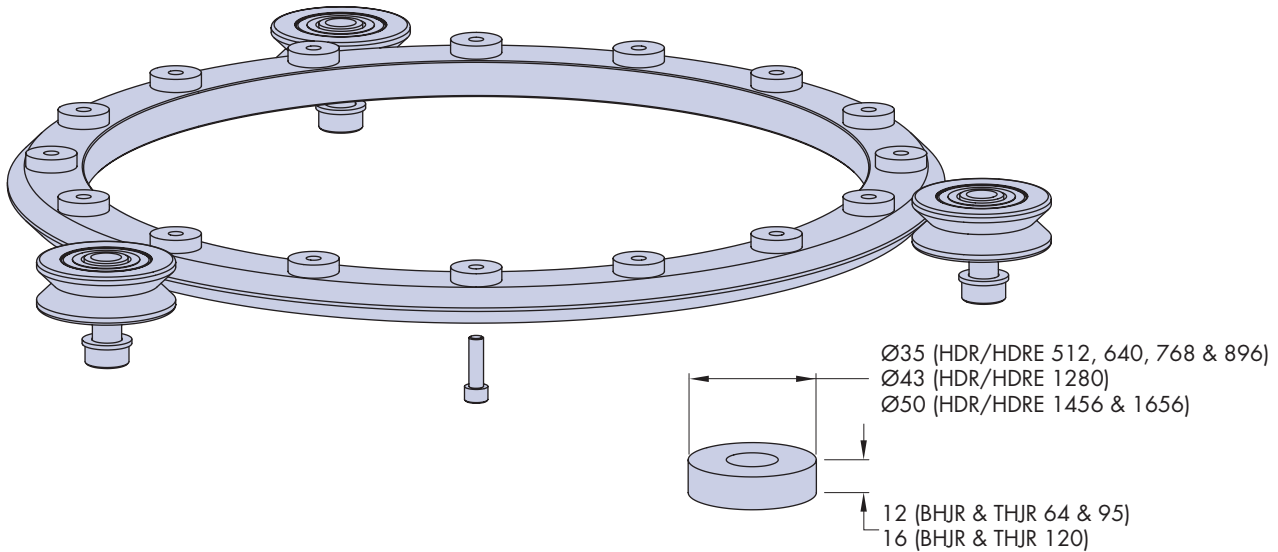
需要加轨垫片让轨道抬高安装面以让轴承运行通畅。

如果优先选择，客户可加工一个支撑型材成为自己的系统结构。

环形垫片是由高碳钢或不锈钢制成，

作为一套去配合注明的圆环导轨/轴承组。

只需在订购圆环导轨时添加零件号SP。



Specials

HepcoMotion has the capacity to turn, harden and grind special rings and disks up to Ø1.8m. Hepco can also make complete turntable units with supporting frames, motors and drives.

Hepco will be pleased to quote on your special requirements.

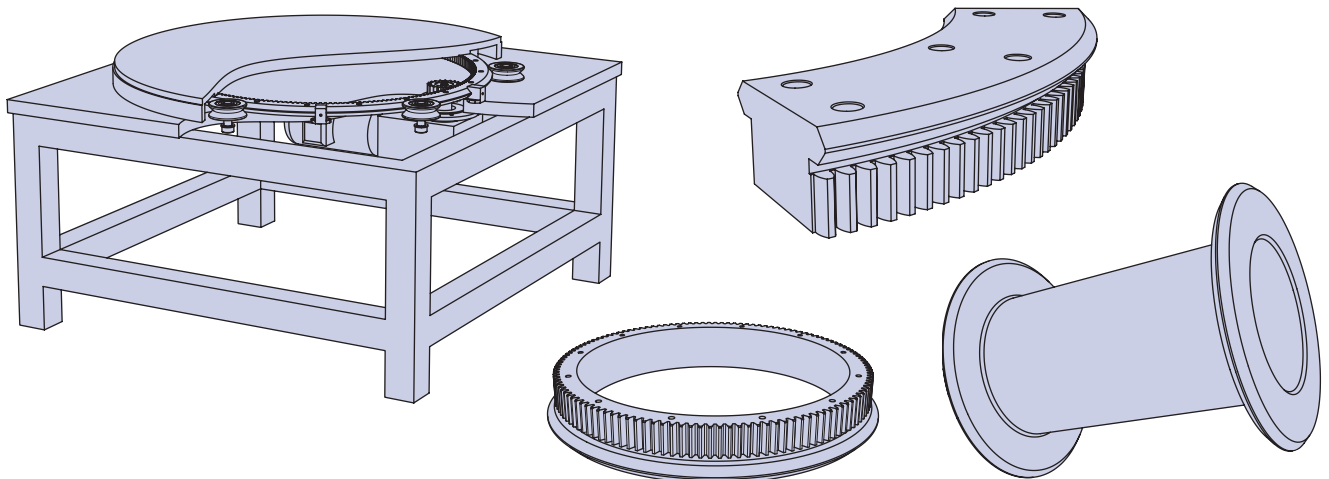
特点

HepcoMotion具有转动的能力，经硬化和研磨特殊圆环导轨和环圆盘直径高达1.8米。

Hepco还可以提供完整转盘系统支撑架，电机和驱动器。Hepco将高兴地采纳您的特殊要求。

Examples of Special Parts

特殊组件示例



HepcoMotion® Product Range/Produktreihe/Gama de Producto

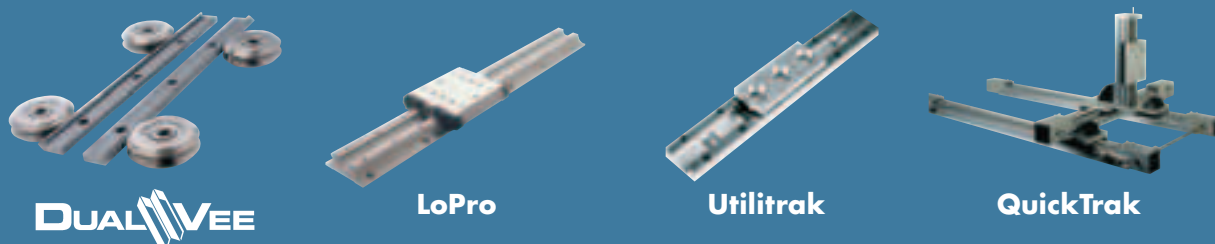


BishopWisecarver Product Range/Produktreihe/Gama de Producto

HepcoMotion® – Exclusive European partners and distributors for Bishop-Wisecarver since 1984.

HepcoMotion® – exklusiver europäischer Partner und Händler für Bishop-Wisecarver seit 1984.

HepcoMotion® – Asociado y distribuidor exclusivo europeo de Bishop-Wisecarver desde 1984.



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Guangzhou Pegatron mechanical & electrical equipment Co., LTD



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