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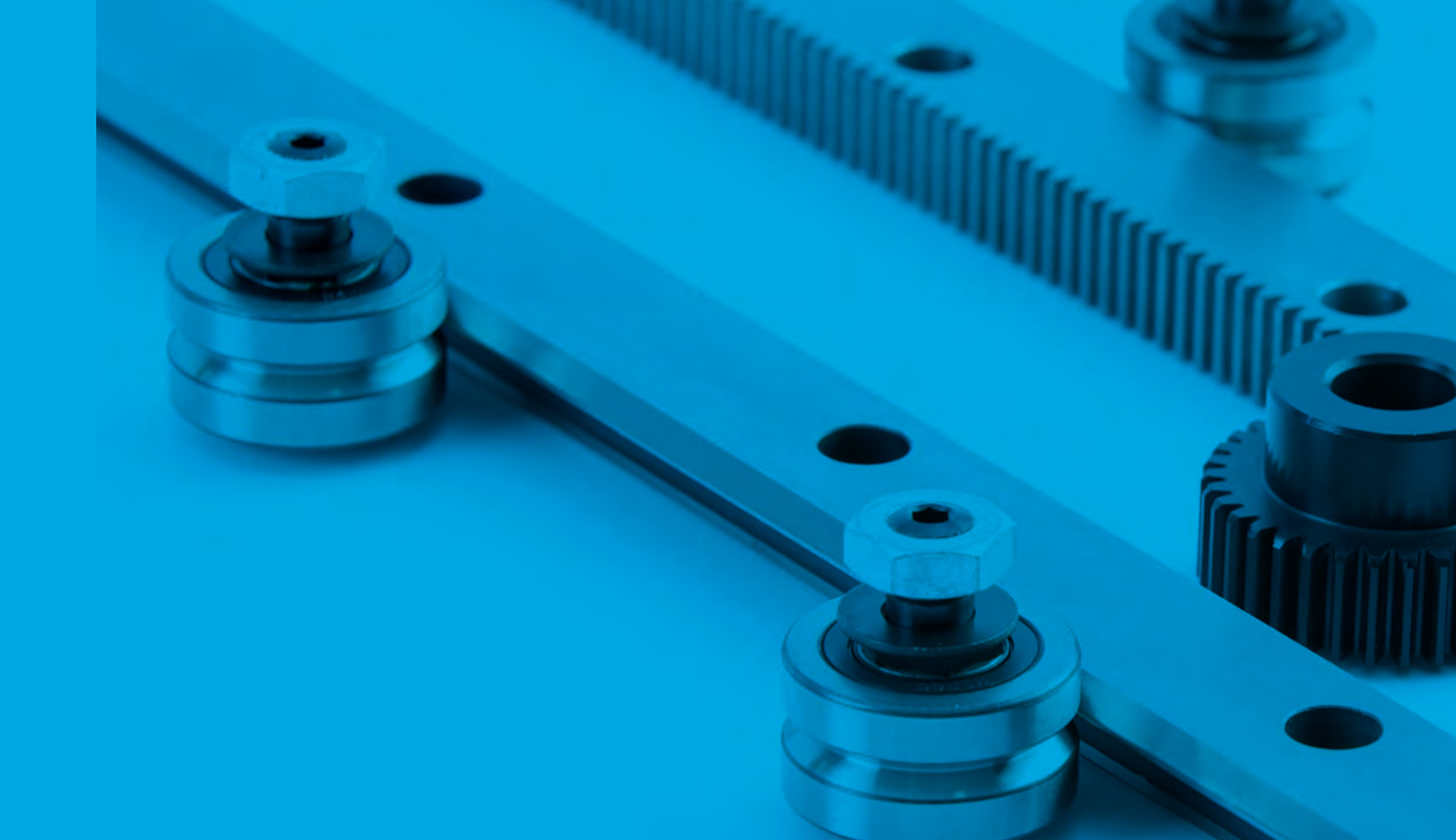
HepcoMotion[®]

ADVANCED LINEAR SOLUTIONS



LINEAR MOTION COMPONENTS

hepcotion.com



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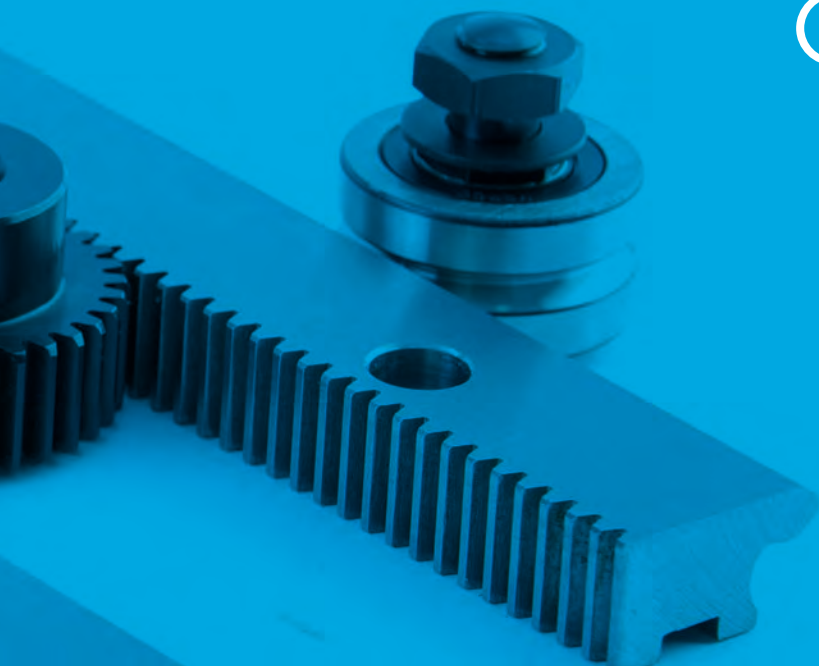
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GV3 Linear Guide System

Load Range	0 – 10,000N
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Speeds	0 – 8m/s
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GV3 is a superior linear guide system designed to serve a diverse range of automation and linear applications.

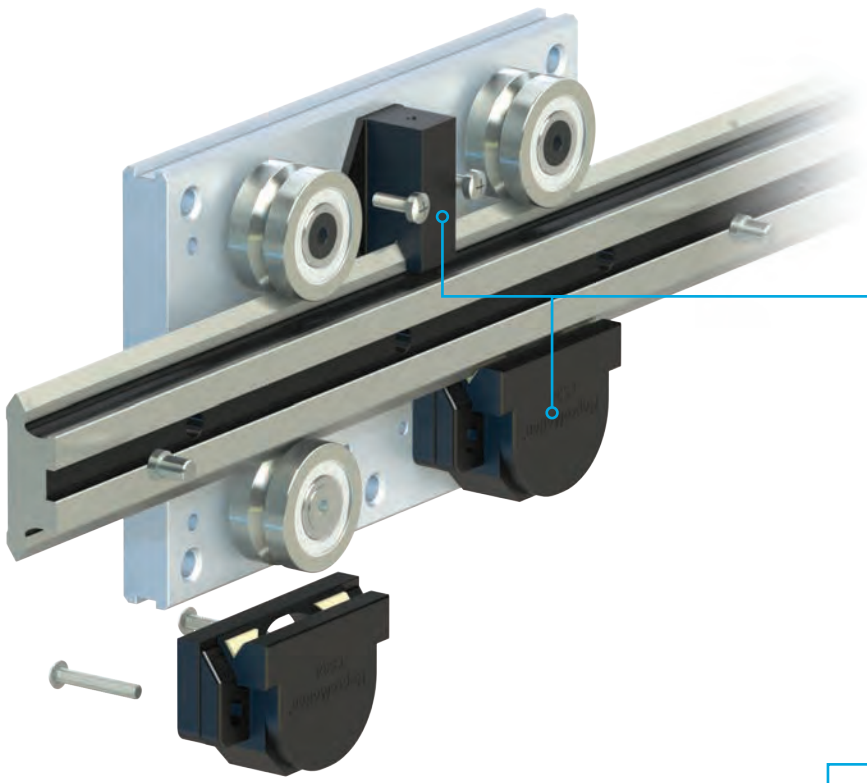
- The GV3 system can operate at high speeds and, if necessary, without lubrication
- Precision ground running surface ensures a highly accurate and low friction system
- Ground surfaces ensure GV3 is one of the quietest linear systems available
- Unlike re-circulating ballrail systems, GV3 will not fail catastrophically

A unique wiping action expels debris, keeping machines running and reliable

Eccentric bearings can be adjusted instead of being replaced, reducing maintenance costs and unnecessary downtime

Linear rails are manufactured from high quality bearing steel and deep hardened on V faces for wear resistance



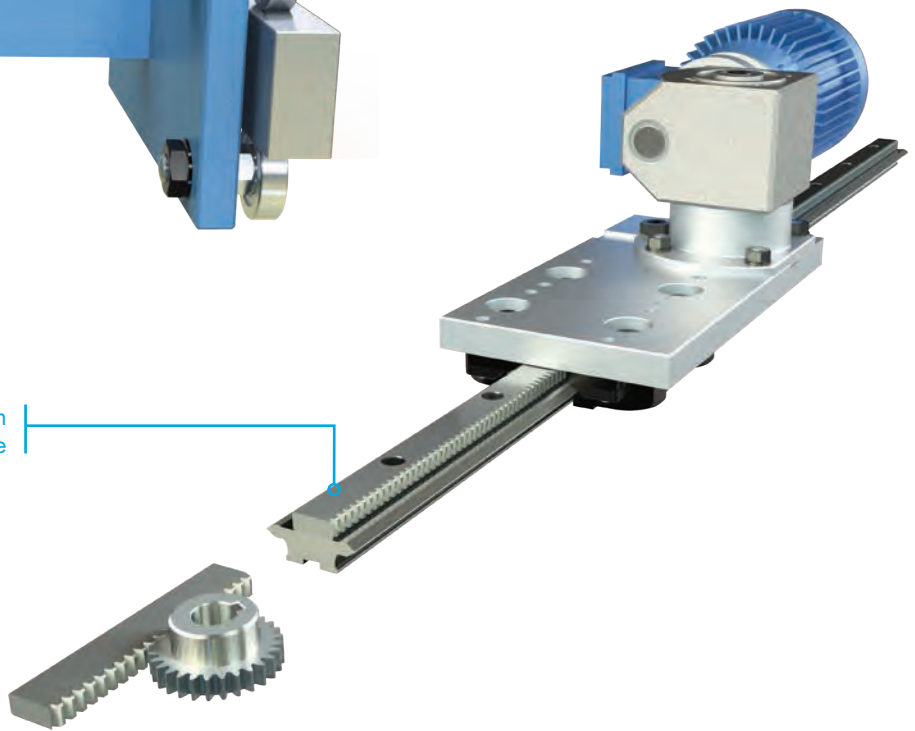


Lubrication devices increase load capacity and system life



Floating and roller bearings provide tolerance of misalignment when two systems are mounted in parallel

Integral rack and pinion drive system saves design time, cost of additional components and space



SL2 Stainless Steel Linear Guide System

Load Range 0 – 8,000N

Speeds 0 – 6m/s

SL2 is the ideal linear guide system for any application requiring corrosion resistance. Typical industries include nuclear, food, medical and scientific applications where long service life with virtually zero maintenance is essential.

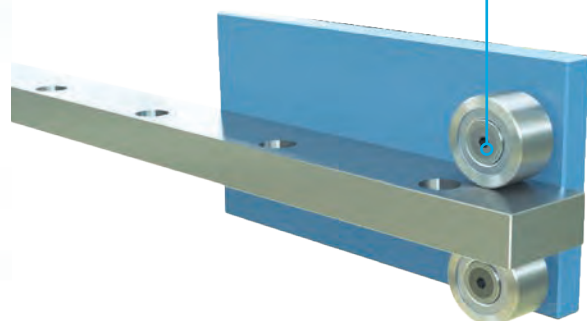
- Ground surfaces of components ensures low friction and smooth movement
- SL2 performs extremely well in hostile conditions, including washdown applications
- SL2 bearings are lubricated internally for life, meaning the system can operate with or without lubrication



Flat or spacer slides are available

Range of greases available for specific applications (food, nuclear, high temperature, low temperature and vacuum environments)

Flat track and roller guides are available to compensate for misalignment of parallelism



Extreme Temperature and Vacuum Linear Guide System

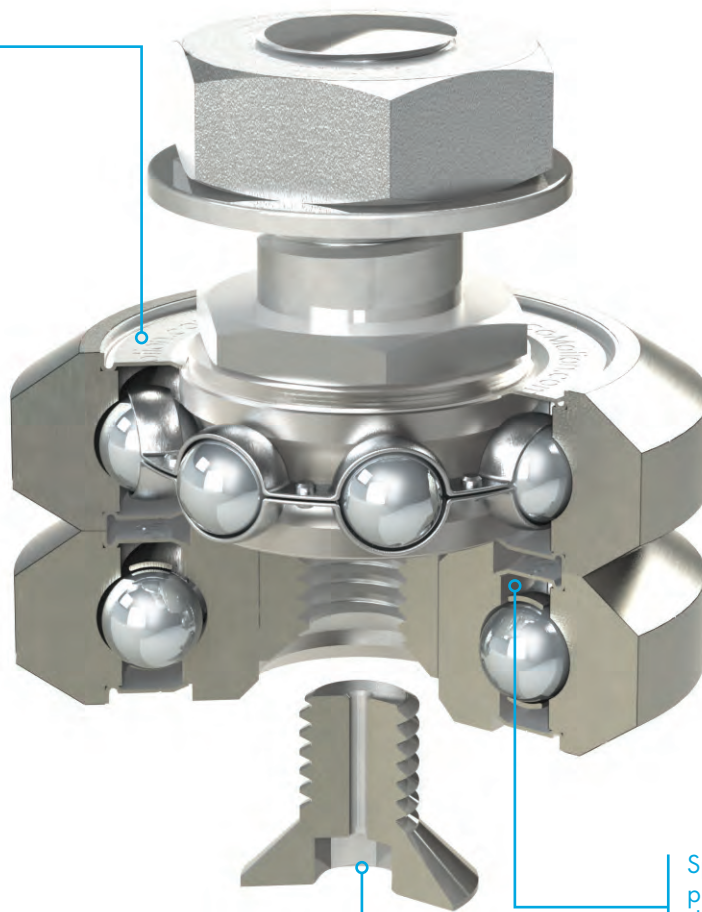
Load Range 0 – 8,000N

Speeds 0 – 8m/s

HepcoMotion's range of extreme temperature and vacuum bearings meets the challenges faced by design engineers, by offering a standardised solution for the most challenging environments.

- Suitable for high vacuum use, including semi-conductor, wafer processing, LCD and OLED panel manufacture and vapour deposition equipment
- Can operate at temperatures between -50°C and +210°C
- Bearing sizes available from 18mm to 54mm diameter
- Can be used with stainless steel linear and curved slides available from Hepco's SL2 & PRT2 ranges

All components are manufactured from stainless steel



Specialist greases are used to provide optimal performance during operation in extreme environments

Vent hole to prevent outgassing



Simple Select Linear Guide

Load Range 0 – 10,000N

Speeds 0 – 8m/s

The Simple Select linear guide is a ready-to-fit range of assembled V Guide systems available in 24 hours or less, and is selected from the broader GV3 linear motion system.

- Despatched from our factory within 24 hours
- High precision and high accuracy
- A unique wiping action expels debris allowing the system to work in the most hostile of environments
- Bearings are lubricated internally for life, meaning the system can operate with or without lubrication

4 sizes of slide to cover basic linear motion requirements

Hardened V edge slide for maximum wear resistance

Simple Select®

Lubrication devices increase system life and decrease machine downtime

HLG & MLG Linear Guides

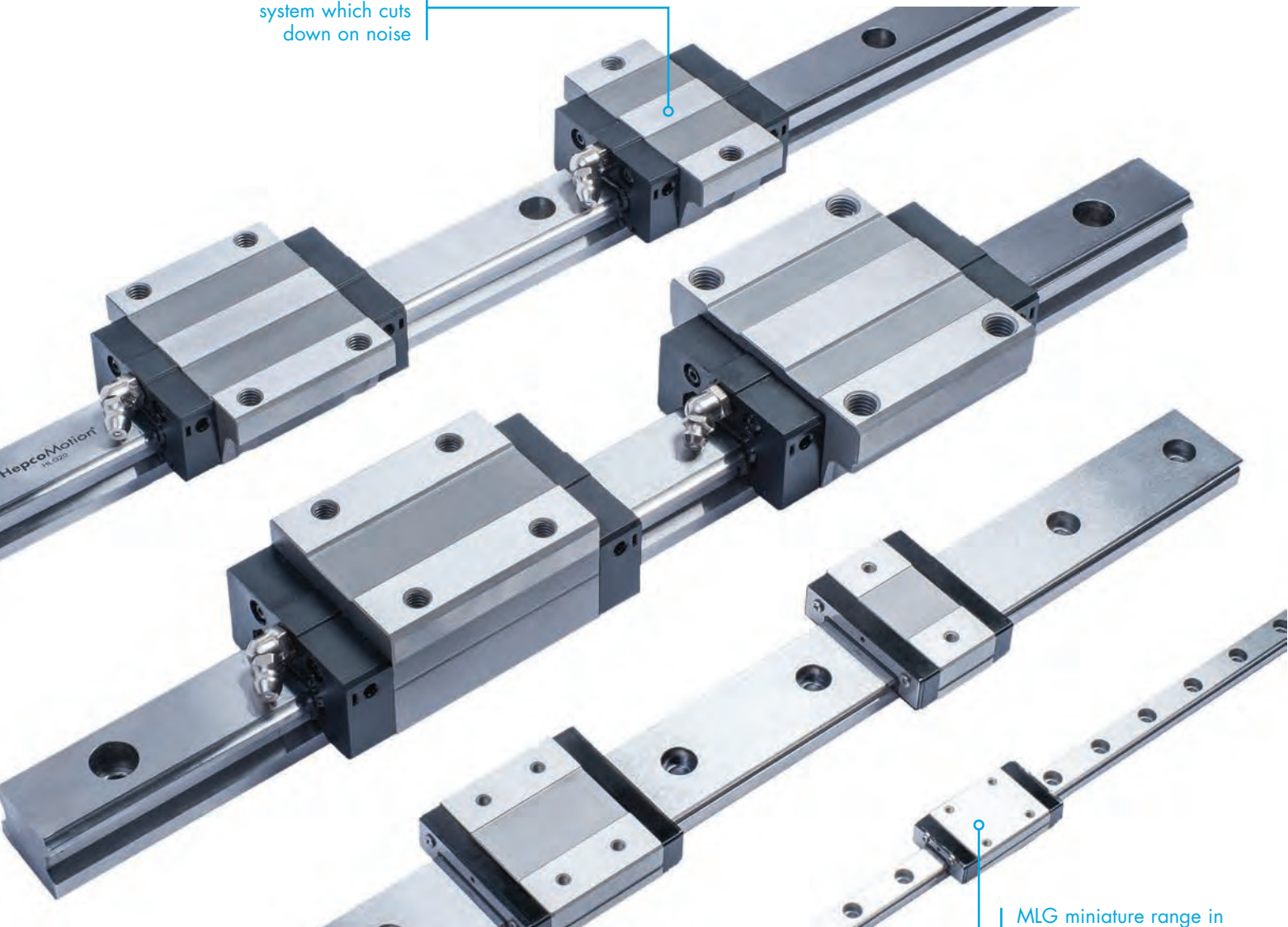
Load Range 0 – 180,000N

Speeds 0 – 1.5m/s

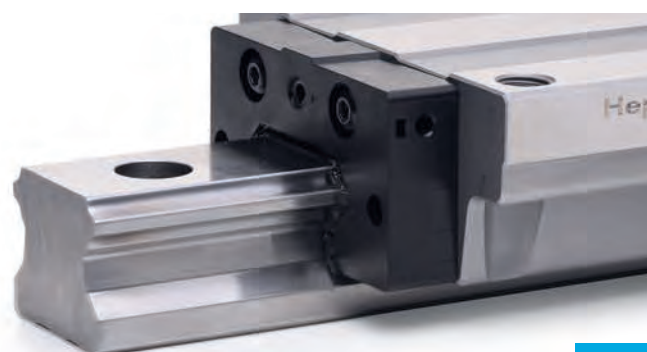
HepcoMotion's HLG & MLG linear guides offer exceptional accuracy and rigidity. This extensive range offers precision and quality at competitive prices, suitable for most automation requirements.

- Sizes from 5mm to 55mm in European standard versions
- Ex-stock availability
- Integral all round block sealing for added protection
- Range of accuracy grades and preloads to suit all applications

Smooth re-circulating system which cuts down on noise



MLG miniature range in stainless steel with standard and wide rail options



HDS2 Heavy Duty Linear Guide System

Load Range 68,000N

Speeds 0–4m/s

HepcoMotion's HDS2 is the ultimate heavy duty solution, with a wide range of V bearings and linear guides to handle the heaviest loads.

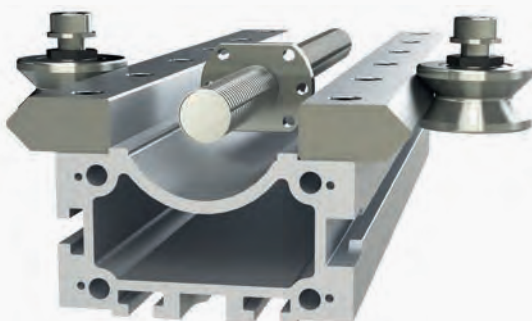
- Available as assembled systems (reducing design and setting time) or in component form
- Unique self-cleaning action expels dirt and debris in hostile environments
- Stainless steel linear guides and bearings available as standard
- Two grades of precision linear guides available to suit different budgets
- System can run dry without lubrication if required

Rack driven carriages incorporate automatic lubrication for pinion

Integral spur or helical rack drive/guide saves design time and cost of additional components

3 sizes of aluminium mounting beams are available, including steel beam options

Belt and ballscrew drive options are available



HGS Gantry System

Load Range 0 – 15,000N

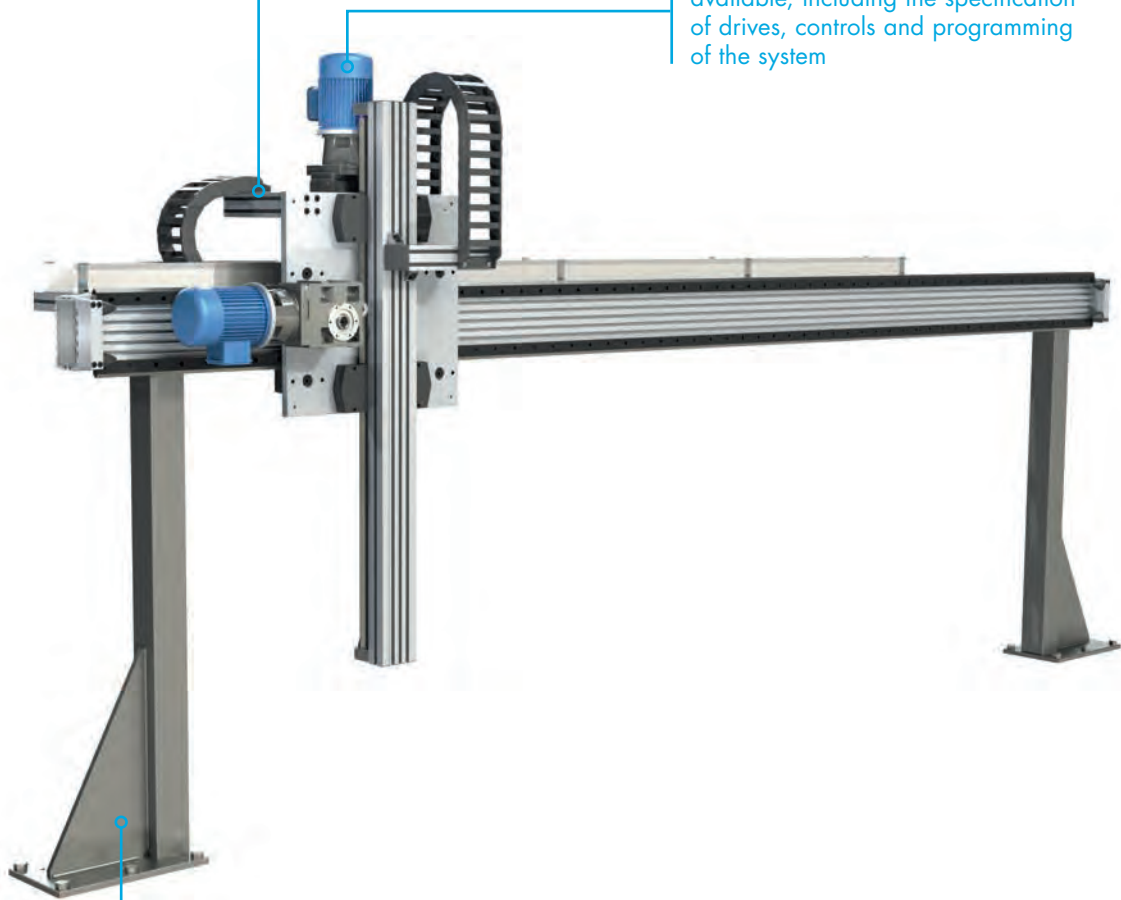
Speeds 0 – 3m/s

Using components taken from the HDS2 range, HepcoMotion's in-house design team can provide multi-axis gantry solutions for pick and place requirements.

- XZ and XYZ systems can be manufactured to your exact requirements
- A range of drive options are available, including rack & pinion, belt and ball screw
- Automatic lubrication of drive and guide system, reduces the need for maintenance and downtime

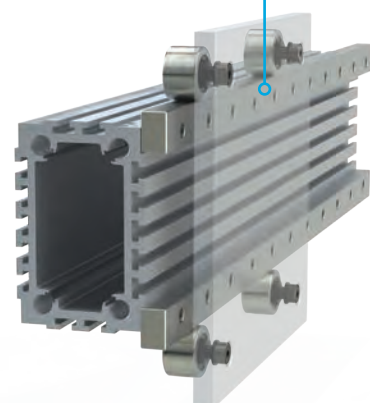
The package can include fitting of motors, cable chains, limit switches, etc.

Complete turnkey packages are available, including the specification of drives, controls and programming of the system



Hepco can provide complete systems, including steel gantry legs made to suit your application

Flat track and roller system compensates for misalignment of parallel systems



MHD Track Roller Guide System

Load Range 0 – 132,000N

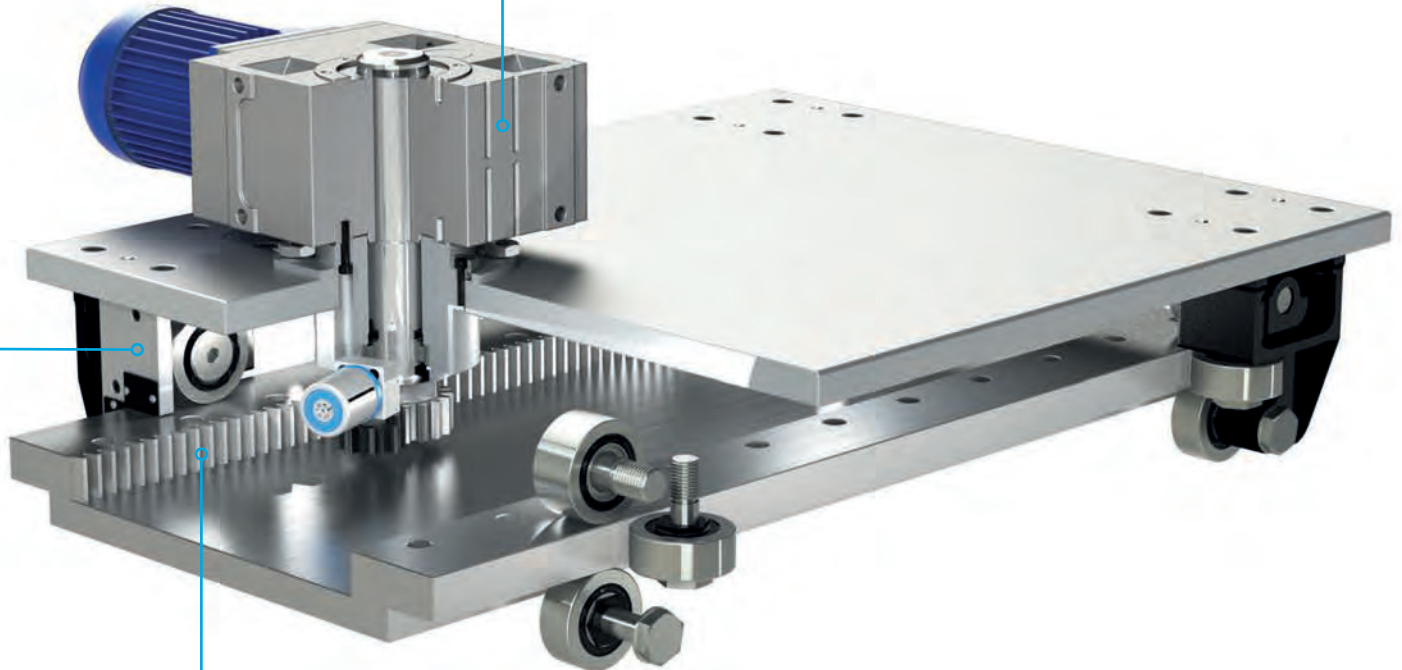
Speeds 0 – 6m/s

The MHD linear system has been specifically designed to transport heavy automation equipment. High offset and overhanging loads are easily accommodated, making the system particularly suited to moving large robots.

- MHD has an extremely heavy load capacity compared to other linear motion systems
- Suitable for high offset loads in heavy duty automation and robotics applications
- Designed for durability and long life
- Unlimited lengths can be achieved

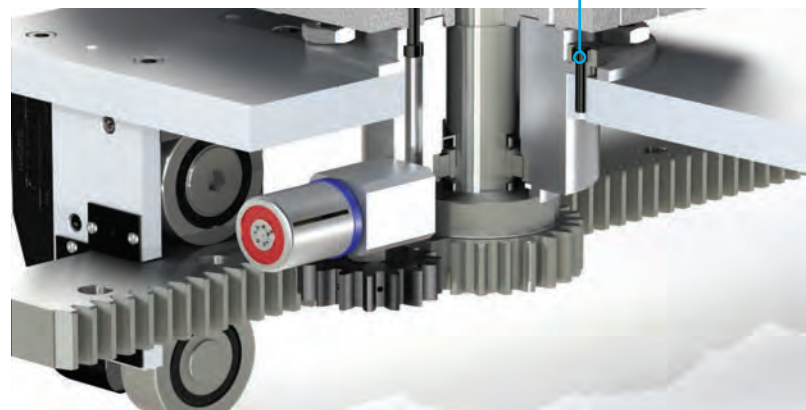
Hardened steel scrapers remove debris and weld spatter from the track

Carriage plates can be made to incorporate gearboxes, motors and other drive elements



Spur or helical gear drive allows for high driving forces

Rack drive available with automatic lubrication system



Ball Bushings

Load Range 0 - 13,700N

Speeds 0 - 3m/s

HepcoMotion's range of ball bushings offer competitive pricing with uncompromised quality. Combined with precision linear shaft, Hepco's ball bushings provide a cost effective linear solution for a wide range of applications.

- Sizes from 5mm to 60mm in European and Japanese metric sizes
- Super and standard bearing versions
- Pillow block and flanged housings
- Quality bearings provide long service life
- Pre-machined datum plates reduce engineering
- Ex-stock availability and fast turnaround on orders
- Full shaft machining options available



Super ball bushings with self-aligning feature



Available in standard sizes or long series for increased rigidity



Pacific Plain Linear Bearings

Load Range 0 – 70,000N

Speeds 0 – 4m/s

The Pacific bearing design features a Frelon® self-lubricating liner material securely bonded into the housing, giving the ability to operate in all types of environments, even under seawater.

- Maintenance free, simply 'fit and forget'
- Bearings incorporate a self-lubricating Frelon® liner
- Unaffected by dirt and contamination
- Excellent shock and vibration absorption
- Temperature range from -240°C to +205°C
- Interchangeable with standard ball bushings
- Full metric and imperial sizes as standard
- Extensive shaft range with full machining options to customer drawings



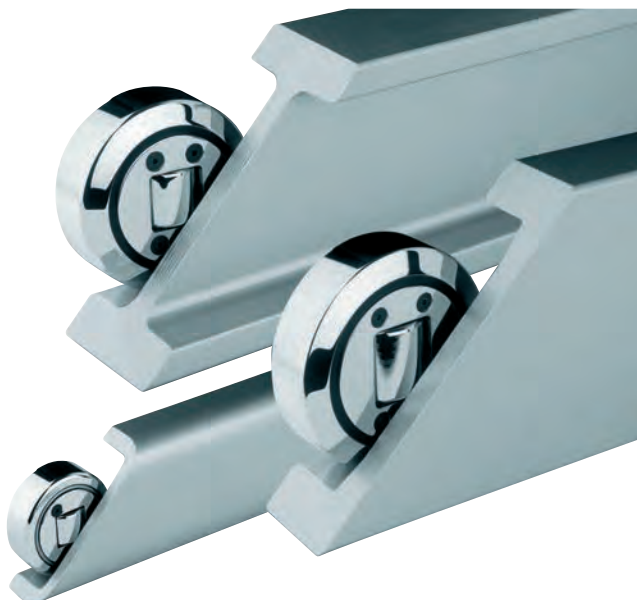
Winkel Combined Bearings and Profile Rails

Load Range 0 – 192,000N

Speeds 0 – 3m/s

Winkel bearings are designed for heavy duty linear applications with a combined high radial and axial load.

- Bearings are lubricated internally providing long service intervals
- High specification 'U' or 'I' beam rail sections are available in lengths up to 12m
- Stainless steel linear components are available as standard
- Optional corrosion resistant coatings available for linear rails and bearings
- Large stock availability with short deliveries
- Vulkollan and Polymide bearings are available for higher speed applications and are quieter in operation
- Full rail machining and fabrication service to customer drawings available



Ball Screw Assemblies

Load Range 0 – 51,000N

Speeds 0 – 2.5m/s

HepcoMotion's range of ball screws are available in a wide range of diameters and pitches to suit many types of applications.



- Standard DIN nuts are available with rolled ball screws $\varnothing 16\text{mm}$ to $\varnothing 50\text{mm}$
- Ground ball screws available for precision applications
- Miniature screw diameters $\varnothing 6\text{mm}$ to $\varnothing 14\text{mm}$ available in rolled or ground finish
- Range of high lead pitches for higher speed applications
- Ends machined to suit standard range of housings or specific applications
- All single nuts are offered either play free or with controlled backlash
- Available on short lead times

Linear Shaft

HepcoMotion's range of linear shaft is available in precision stainless steel or aluminium and complements Hepco's range of linear bearings, pacific plain bearings and pillow block bearings.



- Metric sizes from 5–150mm, 3/16–2'' imperial
- Stainless steel round bar 300 series or hardcoat anodized aluminium available
- Support rail available, ready to mount for high dimensional accuracy and rigidity
- Tubular or aluminium options available to suit almost any requirement
- Precision hard and ground steel shafts h6 tolerance or class L, surface finished to 0.2 – 0.4 μm for maximum bearing life
- Exceptional performance in corrosive environments

DualVee® Linear Guide System

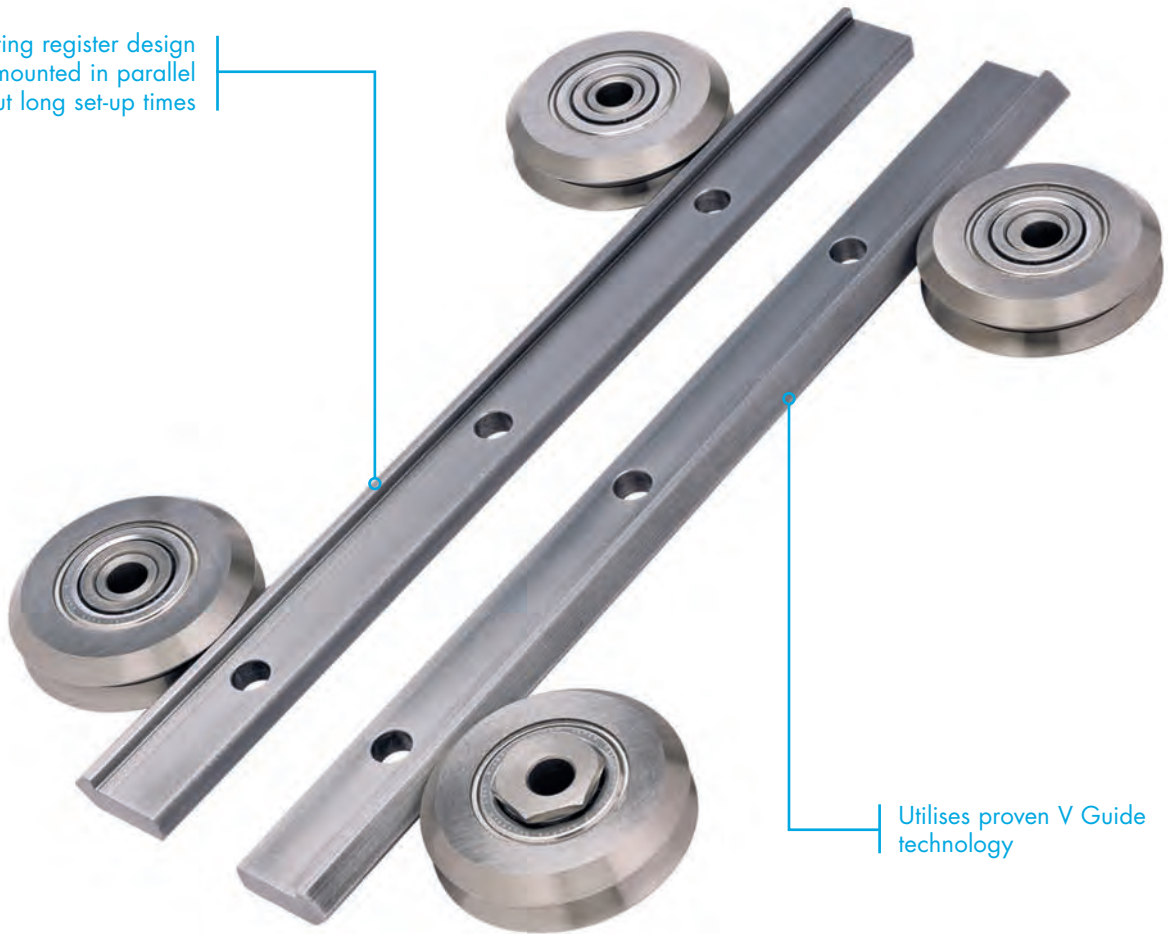
Load Range 0–26,200N

Speeds 0–5m/s

The DualVee® linear guide system from Bishop Wisecarver provides a cost effective solution in a range of sizes to suit most applications. The single edge guide system is effective in applications where two rails are required to run in parallel and can be arranged over large distances. This is particularly effective in machine tool guard door applications.

- The proven Dual Vee system works effectively in harsh environments
- Stainless steel and polymer bearings available
- Linear rails available in up to 6m lengths

Integral mounting register design allows rails to be mounted in parallel quickly and without long set-up times



Utilises proven V Guide technology

DUALVEE Motion Technology™



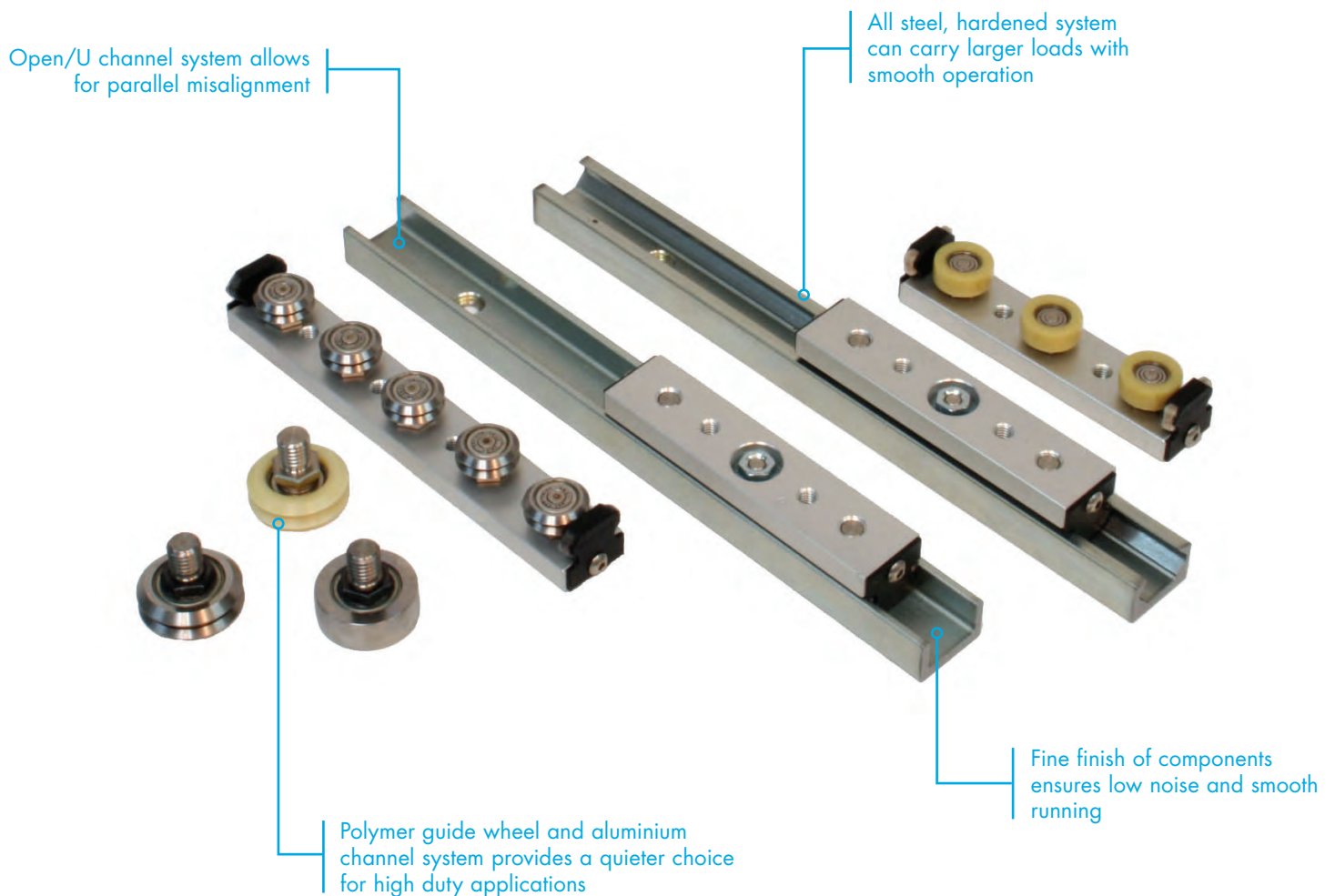
UtiliTrak® Compact Linear Rail System

Load Range 0–7,140N

Speeds 0–4m/s

The UtiliTrak® linear guide from Bishop Wisecarver is designed for applications where low cost, easy installation and minimal maintenance requirements are key design objectives. Constructed with DualVee Motion Technology®, UtiliTrak® offers high reliability, easy installation and low maintenance in a sleek, compact design.

- Can operate at high speed over long travel lengths
- Linear rail system works effectively in harsh environments



Manual brake systems available for rigid locking of carriage

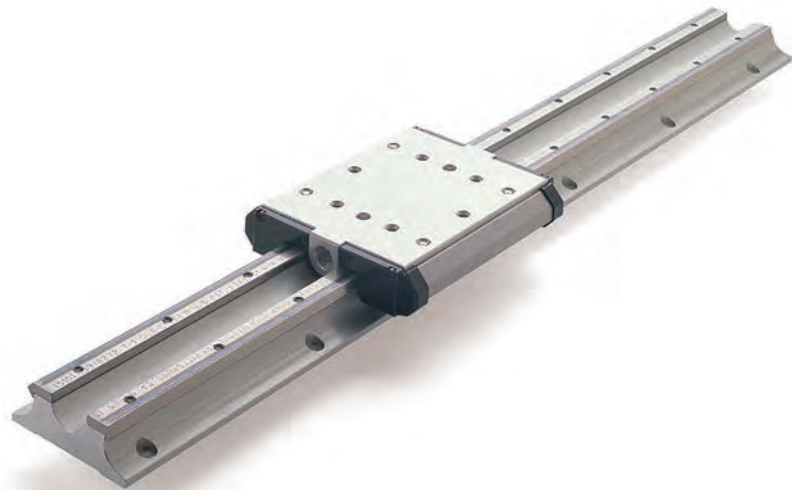


LoPro[®] Linear Rail System

Load Range 0 – 3,100N

Speeds 0 – 4m/s

An extension of the DualVee[®] concept, LoPro[®] from Bishop Wisecarver is a rugged and robust wide based linear rail system suitable for a range of drive options.



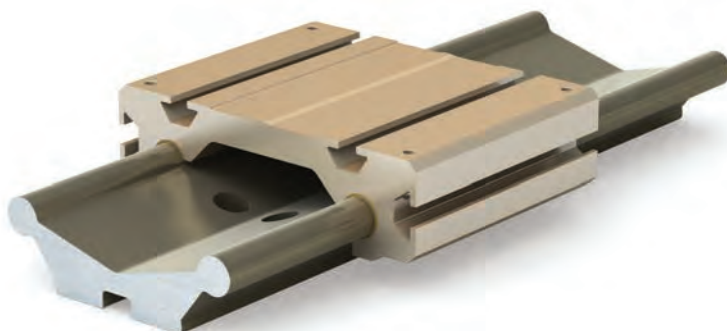
- Linear guide rails are available ready to mount with pre-drilled fixing holes
- Suitable for ball screw and belt drive configurations
- Low system height with higher load capacity
- Available with stainless steel and wheel cover options for aggressive environments

Uni-Guide Aluminium Linear Guide System

Load Range 0 – 4,400N

Speeds 0 – 2m/s

The Uni-Guide linear motion system is a ready-made lightweight solution, suitable for applications requiring a simple and compact assembly.



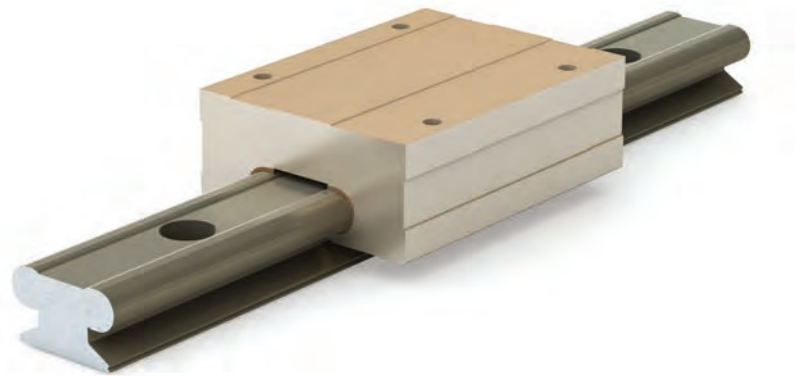
- Simple installation with no time consuming setting of linear shafts
- Rigid aluminium linear guide can be simply bolted down
- Ideal for long length applications
- Self-lubricating linear motion system
- Quiet and smooth operation
- Tolerates shock loads
- Suitable for clean or dirty applications
- Suitable for high or low temperature environments

Mini-Rail Miniature Plain Linear Bearings

Load Range 0 – 6,000N

Speeds 0 – 2m/s

Based on Simplicity™ linear bearings, Mini-Rail miniature linear guides provide an interchangeable alternative to re-circulating linear guides in five useful sizes.



- A cost effective solution where reliability is paramount
- Linear bearings can be supplied corrosion resistant
- Self lubricating linear system
- Linear bearings are interchangeable with miniature profile rails sizes 7 – 20mm
- Quiet and smooth in operation
- Dampens vibration
- Linear bearings will not fail catastrophically
- Tolerates shock loads
- Designed to operate in high or low temperature conditions

LMI Linear Measuring System

The LMI system is a linear measuring device suitable for a host of machine building and system automation applications. Due to a highly flexible tape, the LMI system can be used successfully on cylindrical surfaces in applications such as turntables where angular measurement is required.



- Easy to install, non-contact system ensures long life
- Match with HepcoMotion GV3 or SL2 linear guides for optimum performance
- Designed to excel in clean or hostile environments
- Battery operated, negating the need for wires and any potential electrical hazard
- Can display measurement in mm, metres, inches or degrees
- LMI can be used in conjunction with HepcoMotion PRT2 and HDRT ring based products

MCS Aluminium Profiles

HepcoMotion's range of aluminium profiles include brackets, flexi connectors and accessories to enable complete frames to be constructed from components without the need for drilling or machining. The use of aluminium profiles as an alternative to welded steel frames can reduce material costs, improve flexibility and reduce assembly time.

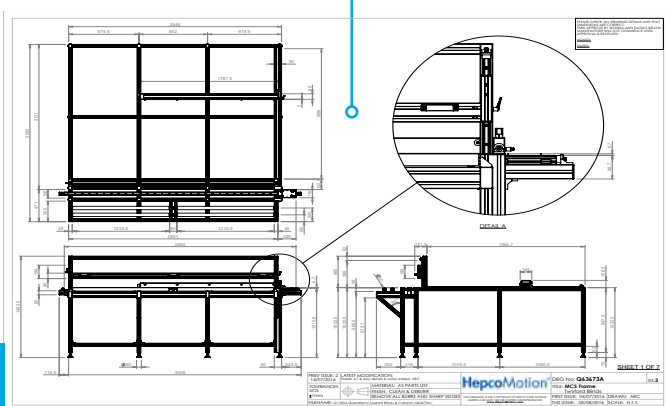
- Wide range of profile sections with T-slots or plain sides
- Supplied in component form, flat packed for re-assembly or fully assembled

Fencing system available for machine protection



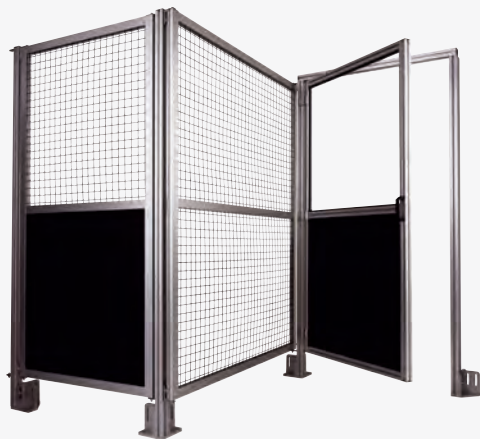
Profiles allow the fixing of linear guide systems

Custom 3D frame design and build service



MFS Machine Fencing System

HepcoMotion's machine fencing system provides a protective barrier around machine installations, gantries, robot systems and stocking areas. Maintenance free, this system is simple to construct and provides a low cost alternative to steel fence frameworks.



- Hepco's design service ensures accurate specification prior to ordering
- Suitable for small or large fencing requirements
- Standard slot profile sections accept a wide range of wire mesh or panel options
- Wire mesh available, self coloured or black powder coated
- Non standard options available on request
- Fast delivery

MCS Workbench and Storage Solutions

Made from HepcoMotion's MCS aluminium profile system, standard designs include workbenches, trolleys, shelving units, tool storage units, tables and desks. Hepco's in-house design team can also design a structure to meet a specific requirement.

- Custom 3D frame design and build service
- Supplied in component form, flat packed for re-assembly or completed frame
- Profiles allow the fixing of linear systems
- A wide range of aluminium profile sections with T-slots or plain sides



HTS Industrial Drawer Slides

Load Range 0 – 280kg

Speeds Manual

The HTS range of industrial drawer slides provide a high quality low cost solution for loads up to 280kg. These linear slides are suitable for applications such as the opening and closing of cabinets and for guiding electrical equipment.

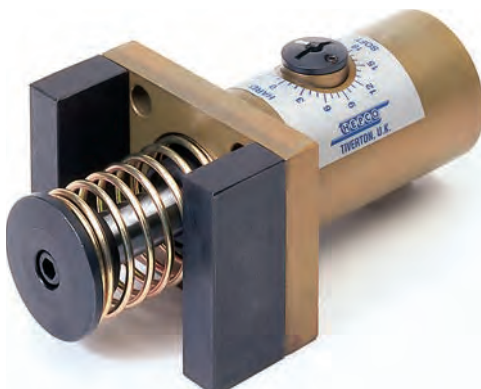
- Smooth movement over the entire travel distance
- A unique super slim series where space is at a premium for light duty loads
- Units feature lock-out facility to prevent accidental closure
- Special lengths available
- Zinc plated or stainless steel options depending upon corrosion resistance requirements



SH Linear Shock Absorbers

The ideal product to complement HepcoMotion's linear motion systems, SH units are a cost-effective machine protection method in case of control system failure.

- Extended machine life
- Full threaded and fixed flange types available, together with all mounting accessories required
- Higher operating speeds means greater production throughput
- Reduced stress in associated parts
- Reduced noise
- Reduced design and fabrication costs



HepcoAutomation offers advanced automation solutions from complete turnkey systems to specialised tooling. Systems are designed using the latest high performance mechanical and motion control products, providing reliable, low maintenance automation solutions.

HepcoAutomation takes care of your project from concept to completion.



To find out more about our motion control services, visit www.HepcoAutomation.co.uk

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