

System Composition

Linear Motion System with Standard Bearing Programme

Pages 2-7 provide an overview of the comprehensive GV3 linear motion system. Below is shown the basic range of Slides and components available with Hepco's Standard Twin and Double Row Bearings. A similar range is available with Hepco's

ALL SLIDES (COMMON FEATURES) 24-29

- One piece construction for assured parallelism and rigidity.
- Manufactured from high quality bearing steel.
- Deep hardened V faces for maximum wear resistance.
- Soft centre section allows customising.
- Wide range of sizes to choose from.
- 3 grades of precision to suit cost/performance requirements.
- Any length supplied up to 4 metres, unground grade to 6 metres.
- Unlimited length achieved by butting.
- Attractive, corrosion inhibiting black finish on unground faces.
- Common 70° 'V' allows many bearing/slide combinations.

LUBRICATOR 38

- Lubricates contact surfaces increasing load capacity and life.
- Can be attached from either side of a carriage.
- Lightly sprung felt wiper ensures low friction.
- Flanged and Compact versions available.
- Long lubrication interval.

SINGLE EDGE FLAT SLIDE / DOUBLE EDGE FLAT SLIDE 28-29

- Lower weight for less inertia where Slide is the moving component.
- Lower cost in cases where spacer is part of customer's construction.
- Plain hole, or counterbored fixing option for flush top surface.
- A number of widths for each basic section gives 11 sections to choose from.
- Can be spaced apart for high moment load capacity.

PINIONS 45

- Bored type and integral shaft type available.
- Hardened teeth for long life.
- Keyway provided in bored type pinion.
- Shaft type pinion compatible with Hepco Rack Driven Carriage.
- Shaft type pinion compatible with Hepco Motor Gearboxes.

SINGLE EDGE SPACER SLIDE 26-27

- Mounts directly to a flat surface. No spacer required.
- Can be spaced apart for high moment load capacity.
- Keyway and datum edges provide means of location and alignment.
- Counterbored hole fixing, tapped hole fixing or undrilled options available.
- Plastic hole plugs provided to avoid debris traps.
- Rack cut option provides means of driving.
- Back face provides mounting register, or running surface for Track Roller.
- 5 sections to choose from.

CAP SEAL 36

- Lubricates contact surfaces increasing load capacity and life.
- "Lubricated for life" in most applications.
- Seals against ingress of debris.
- Improves operational safety.
- Enhances appearance of system.
- Incorporates both through hole and tapped hole fixing facility.

DOUBLE EDGE SPACER SLIDE 24-25

- Mounts directly to a flat surface. No spacer required.
- Keyway and datum edges provide means of location and alignment.
- Counterbored hole fixing, tapped hole fixing or undrilled options available.
- Plastic hole plugs provided to avoid debris traps.
- A number of widths for each basic section gives 11 sections to choose from.

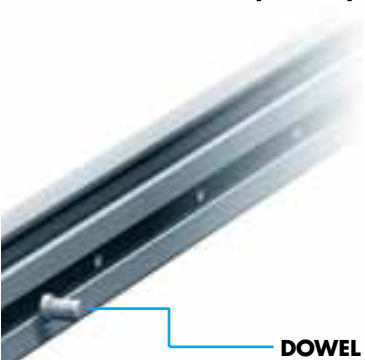
System Composition

Slimline Bearings, details of which are shown on the following page. Components are available factory assembled where possible or as individual parts if preferred. Many sizes and types of Hepco component can be interchanged to achieve an unrivalled combination of space and performance possibilities.

The GV3 philosophy is to provide a solution to every linear motion problem.

ALL BEARINGS (COMMON FEATURES & OPTIONS) 32-33

- Special raceway conformity and low radial clearance, for Slide applications.
- Twin bearing for tolerance of misalignment and smooth running.
- Double row bearing for tolerance of debris and higher load capacity.
- Range of 5 useful sizes to choose from.
- Metal shields for exclusion of particulates and low friction running.
- Nitrile sealed version prevents ingress of liquids.



DOWEL PINS 25&27

- Easy method of location and alignment.

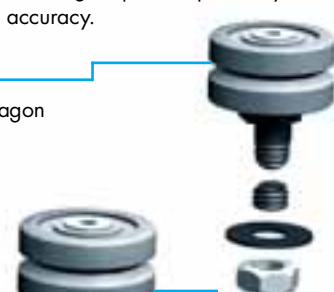
CONCENTRIC BEARING 32-33

- Provides datum reference for the system.
- Short fixing stud for thin carriage plate.
- Long fixing stud for thick carriage plate.
- Controlled height option improves system height accuracy.



ECCENTRIC BEARING 32-33

- Provides simple means of adjustment via centre hexagon or socket each end.
- Short fixing stud for thin carriage plate.
- Long fixing stud for thick carriage plate.
- Controlled height option improves system height accuracy.



DOUBLE ECCENTRIC BEARING 32-33

- Eccentric throw sufficient for direct removal of Carriage from Slide.
- All attributes of the standard Eccentric version apply.

CARRIAGE / CARRIAGE PLATE 18-21

- Factory adjusted to chosen Slide, or supplied as a kit of parts.
- Available with Bearings only, or with the addition of Cap Seals or Lubricators.
- Useful size platform with flush surface for mounting purposes.
- Tapped holes in convenient positions for attachment purposes.
- Groove along sides to provide register for switch brackets etc.
- Carriages available for all 11 Slide sections in all grades.
- 3 lengths available in each size and most types.
- Tamper proof option.
- Removable option for direct disengagement from Slide.
- Controlled height option for special accuracy requirements.



BLIND HOLE CONCENTRIC BEARING } 32-33

- BLIND HOLE ECCENTRIC BEARING
- ● For mounting into thick plates or where access to opposite side restricted.
- Adjustable from operating side for ease of access.

TWIN BEARING/DOUBLE ROW BEARING 32-33

- Twin bearing for tolerance of misalignment and smooth running.
- Double row bearing for tolerance of debris and higher load capacity.
- ● Special raceway conformity and low radial clearance, for Slide applications.
- ● General quality to ISO Class 4. Aspects to Class 2.
- ● Made in Hepco factory which has the following accreditation: - ISO 9001 Aerospace Sector Certification TS 157



System Composition

Linear Motion System with Slimline Bearing Programme

Pages 2-7 provide an overview of the comprehensive GV3 linear motion system. Below is shown the basic range of Slides and components available with Hepco's Slimline Bearings. An identical range of Slides is available with Hepco's Standard Bearings, details of which are shown on the previous page. Components are available factory assembled where possible or

ALL SLIDES (COMMON FEATURES) [24-29](#)

- All Slides suitable for both Slimline and Standard Bearings. Please see previous page for specific features.
- One piece construction for assured parallelism and rigidity.
- Manufactured from high quality bearing steel.
- Deep hardened V faces for maximum wear resistance.
- Soft centre section allows customising.
- Wide range of sizes to choose from.
- 3 grades of precision to suit cost/performance requirements.
- Any length supplied up to 4 metres, unground grade to 6 metres.
- Unlimited length achieved by butting.
- Attractive, corrosion inhibiting black finish on unground faces.
- Common 70° 'V' allows many bearing/slide combinations.

LUBRICATOR [38](#)

- Lubricates contact surfaces increasing load capacity and life.
- Lightly sprung felt wiper ensures low friction.
- Can be attached from either side of the carriage/mounting surface.
- Long lubrication interval.

DOUBLE EDGE FLAT SLIDE [28-29](#)

- Please see previous page for features.

DOUBLE EDGE SPACER SLIDE [24-25](#)

- Please see previous page for features.

PINIONS [45](#)

- Bored type and integral shaft type available.
- Hardened teeth for long life.
- Keyway provided in bored type pinion.
- Shaft type pinion compatible with Hepco Rack Driven Carriage.
- Shaft type pinion compatible with Hepco Motor Gearboxes.

SINGLE EDGE SPACER SLIDE [26-27](#)

- Please see previous page for features.

SINGLE EDGE FLAT SLIDE [28-29](#)

- Please see previous page for features.

CAP WIPER [37](#)

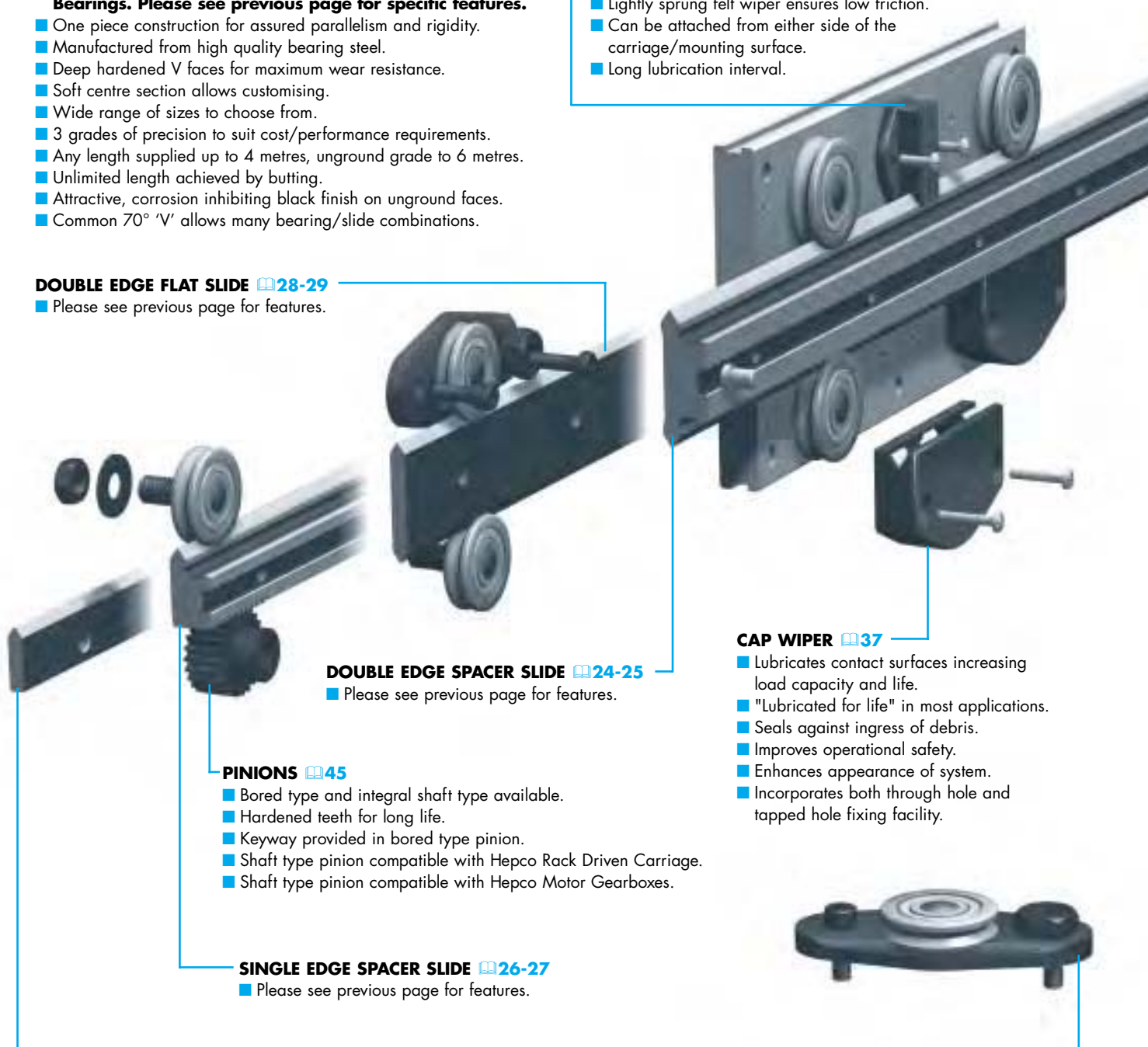
- Lubricates contact surfaces increasing load capacity and life.
- "Lubricated for life" in most applications.
- Seals against ingress of debris.
- Improves operational safety.
- Enhances appearance of system.
- Incorporates both through hole and tapped hole fixing facility.

BLIND HOLE ECCENTRIC BEARING [34-35](#)

- For mounting into thick plates or where access to opposite side is restricted.
- Adjustable from operating side for ease of access.

BEARING ATTRIBUTES [34-35](#)

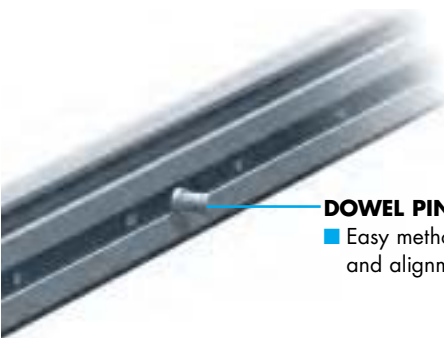
- Special raceway conformity and low radial clearance, for Slide applications.
- General quality to ISO Class 4. Aspects to Class 2.
- Made in Hepco factory which has the following accreditation: - ISO 9001 Aerospace Sector Certification TS 157.



System Composition

as individual parts if preferred. Many sizes and types of Hepco component can be interchanged to achieve an unrivalled combination of space and performance possibilities.

The GV3 philosophy is to provide a solution to every linear motion problem.



DOWEL PINS [25&27](#)
■ Easy method of location and alignment.

SLIMLINE BEARINGS (COMMON FEATURES & OPTIONS) [34-35](#)

- Special raceway conformity and low radial clearance, for Slide applications.
- Narrow profile for compact system height.
- Low cost system, specially if combined with P3 grade (unground) slides.
- Load capacity adequate for many applications.
- Single piece bearing for tolerance of debris.
- Range of 4 useful sizes to choose from.
- Metal shields for exclusion of particulates and low friction running.
- Nitrile sealed version prevents ingress of liquids.

ECCENTRIC BEARING [34-35](#)

- Provides simple means of adjustment via centre hexagon.
- Short fixing stud for thin carriage plate.
- Long fixing stud for thick carriage plate.



CONCENTRIC BEARING [34-35](#)

- Provides datum reference for the system.
- Short fixing stud for thin carriage plate.
- Long fixing stud for thick carriage plate.



BLIND HOLE CONCENTRIC BEARING [34-35](#)

- For mounting into thick plates or where access to opposite side is restricted.



FLANGE CLAMP [39](#)

- Enables Slide to become a self supporting beam.
- Two mounting possibilities, face fixing or base fixing.
- Easy removal of Slide and positive relocation.
- Available in long or short type, to support a Slide at one or both ends.



CARRIAGE / CARRIAGE PLATE [22-23](#)

- Factory adjusted to chosen Slide, or supplied as a kit of parts.
- Available with Bearings only, or with the addition of Cap Wipers or Lubricators.
- Useful size platform with flush surface for mounting components.
- Tapped holes in convenient positions for attachment purposes.
- Groove along sides to provide register for switch brackets, etc.
- Carriages available for most Slide sections in all grades.
- 3 lengths available in each size and most types.
- Tamper proof option.

System Composition

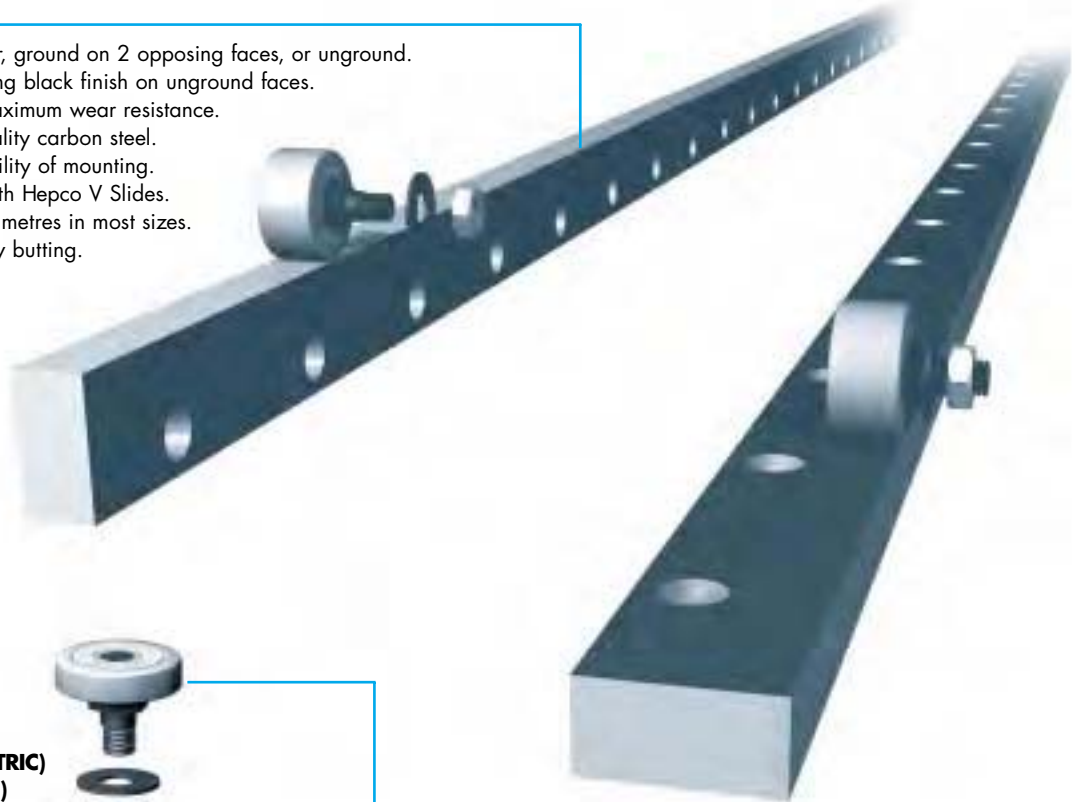
Linear Motion System Incorporating Flat Tracks & Rollers

Pages 2-7 provide an overview of the comprehensive GV3 linear motion programme. Below is shown the extensive range of Flat Tracks and Track Rollers compatible with Hepco's linear motion systems. See page 16 for the varied ways in which they can be used.

The GV3 philosophy is to provide a solution to every linear motion problem.

FLAT TRACK 40

- Choose from ground all over, ground on 2 opposing faces, or unground.
- Attractive, corrosion inhibiting black finish on unground faces.
- Deep hardened faces for maximum wear resistance.
- Manufactured from high quality carbon steel.
- Offset fixing holes for versatility of mounting.
- 4 useful sizes compatible with Hepco V Slides.
- Any length supplied up to 4 metres in most sizes.
- Unlimited length achieved by butting.



SLIMLINE ROLLER (CONCENTRIC) WIDE ROLLER (CONCENTRIC)

 41-43

- Provides datum reference for the system.

SLIMLINE ROLLER (ECCENTRIC) WIDE ROLLER (ECCENTRIC)

 41-43

- Provides simple means of adjustment.

TRACK ROLLERS (COMMON FEATURES) 41-43

- Size and load capacity equivalent to Hepco V Bearing.
- Special raceway conformity with low radial clearance.
- Range of 4 useful sizes to choose from.
- Crowned running face for tolerance of misalignment.
- Metal shields for exclusion of particulates and low friction running.
- Nitrile sealed version prevents ingress of liquids.
- Designed to run on Track or back face of Single Edge Spacer Slides.
- General quality to ISO Class 4. Aspects to Class 8.
- Made in Hepco factory which has the following accreditation:
ISO 9001 - Aerospace Sector Certification TS 157.

● BLIND HOLE, WIDE, CONCENTRIC ROLLER ■ BLIND HOLE, WIDE, ECCENTRIC ROLLER

 41-43

- For mounting into thick plates or where access to opposite side restricted.
- Adjustable from operating side for ease of access.
- Provides datum reference for the system.



System Composition

Linear Motion System with Drive Facility / Support Structure

Pages 2-7 provide an overview of the comprehensive GV3 linear motion programme. Below is shown the range of GV3 products available with enhanced features to provide a complete engineering package.

The GV3 philosophy is to provide a solution to every linear motion problem.

BELT DRIVEN CARRIAGE [46-47](#)

- Use with Flat Slides, Spacer Slides or Slide Beams in all grades of precision.
- Choice of 5 sizes each available in two useful lengths.
- Integral belt tensioners for ease of adjustment.
- Removable mounting platform for ease of customising.
- Tapped holes for convenience of attaching components.
- Available with most Hepco Standard Bearing variants and Lubrication devices.

TIMING PULLEYS [46-47](#)

- Low backlash profile for high positional accuracy.
- Width to suit Belt Driven Carriages.
- Diameter enables belt return through Slide Beam.

TIMING BELT [46-47](#)

- High strength, steel reinforced AT profile open length belt.
- Cut to length, up to 50 m.
- Widths to suit Hepco Belt Driven Carriages & Pulleys.

SLIDE BEAMS [30-31](#)

- Can be used as machine construction member.
- Strong section, spans wide gaps.
- Available up to 8 metres in one piece.
- Choice of 2 beam sections and 5 Slide widths.
- Slides available in 3 grades of precision.
- Lightweight version available.
- Counterbored Slide version for belt support.
- Hollow centre for belt, cable or chain return.
- T slots for attaching components.
- Plastic T slot covers, T nuts and fixing clamps available.

SEPARATE RACK [44](#)

- As used in Rack-Slide assembly.
- 4 sizes available.
- Lengths up to 1.83 m, longer lengths achievable by butting.

PINIONS [45](#)

- Please see previous page for features.

RACK DRIVEN CARRIAGE UNIT [48-49](#)

- Carriage includes drive pinion & AC geared motor or gearbox.
- Carriages available to suit 7 rack-slide sizes.
- Size, shape, and drive position bespoke to your requirements.
- Carriages available with all Standard Bearing types and Lubrication devices.
- Fine adjustment facility for pinion assures low backlash.
- Gearbox, Flange, Pinions & Motor are available separately for use in your own design, or with rack cut single edge slides or separate racks.

RACK-SLIDE ASSEMBLY [24-25](#)

- Dowelled Rack-Slide assembly is ready to fix to your mounting surface.
- Available in 10 useful sizes and 3 grades of precision for Slide.
- Slides with compound racks available up to 4 metres, unground slide grade to 6 metres.
- Unlimited Rack-Slide length achieved by butting.
- Attractive, corrosion inhibiting black finish on unground Slide faces and on Rack.

