

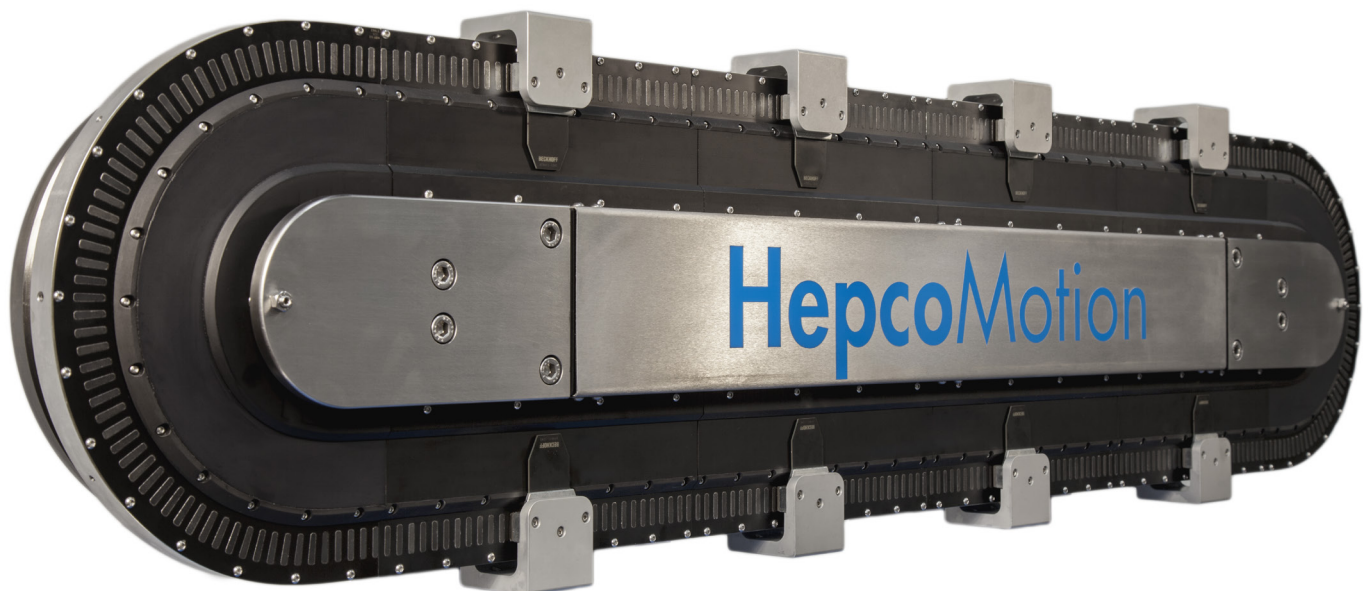


HepcoMotion®

HepcoMotion Guidance for Beckhoff XTS eXtended Transport System

The Beckhoff XTS eXtended Transport System uses linear motor technology to drive movers around a track. The motion of each mover is independently controlled, offering complex high speed motion profiles without compromising positional accuracy. This highly versatile system is rapidly being adopted within the packaging and manufacturing industries as users benefit from vastly improved production rates with the ability to make on the fly product changes.

Linear motion experts HepcoMotion have worked with Beckhoff to develop special versions of their PRT2 and 1-Trak guidance systems to work with XTS. This option will meet the needs of higher duty XTS applications where motion profiles and long term durability requirements are particularly demanding.



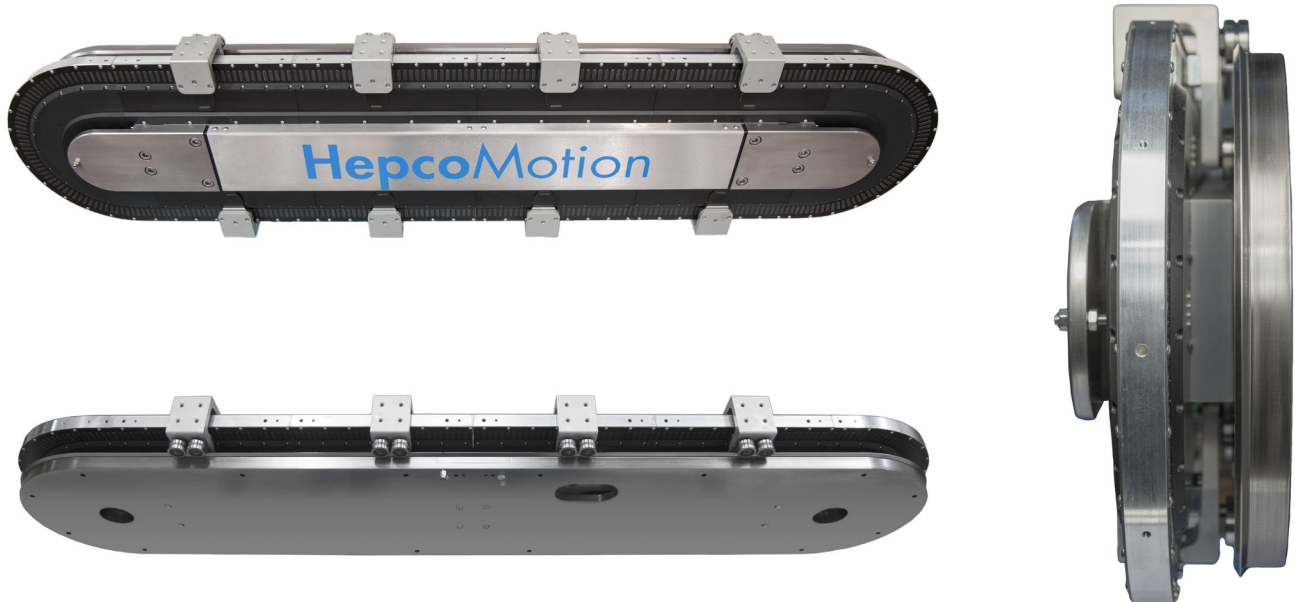
Key performance benefits:

- Hardened steel guidance system retains accuracy over long periods
- Proven V guidance concept provides longer life
- Simplified lubrication system – enables use in high duty cycle production environments
- Lightweight mover assembly includes high capacity HepcoMotion V bearings
- V bearings grease packed for life
- Low maintenance bleed lubrication system for track – food compatible lubricants can be used if necessary
- Easy change mover system with removable track section and pre set replacement movers
- Stainless steel guidance system available for food processing applications

HepcoMotion Guidance for Beckhoff XTS Extended Transport System

Linear guidance system options

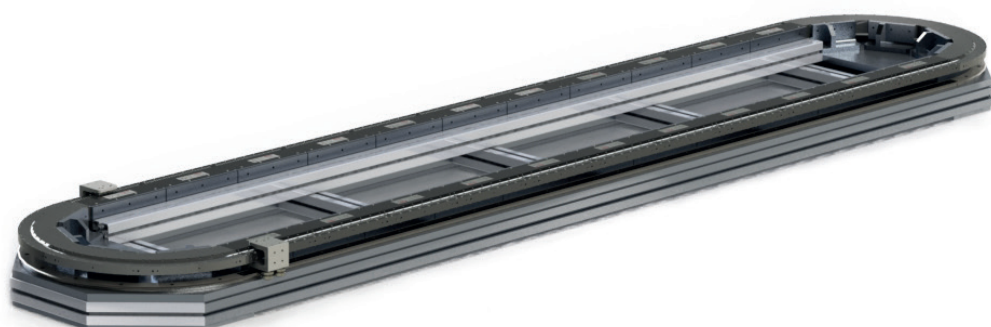
The smallest XTS oval shaped tracks are about 300mm wide with the curved ends having a special clothoidal spiral path. This provides a much smoother movement for the movers than can be achieved with the more usual tangent circular design. This is essential to achieve optimum performance in high speed operations in such a small space. The path shape minimises the rate of change of acceleration of the movers and payloads, controlling the shock loads that would otherwise reduce the life of key components.



Uniquely, HepcoMotion's patented 1-Trak guidance system can be configured to follow any 2 dimensional path and this is a perfect match for the small XTS system. 1-Trak uses a lightweight 3-bearing design to guide movers on this optimal path running on a precision hardened steel track.

For short systems up to 1.8m in overall length, the whole guidance system including straight sections is manufactured out of one piece of material. This makes a very strong and accurate construction and considerably simplifies the installation. For longer applications, the track system will usually be made in sections.

XTS systems with larger radius bends use a more conventional combination of straight sections and tangent curves. This system uses the well-proven four V bearing layout for the movers, running on HepcoMotion's PRT2 guides. These have been used in innumerable packaging, pushing and positioning applications for many years, and are known in the industry for their durability, precision and free running qualities.



Maintenance

Beckhoff's XTS requires very little maintenance to achieve consistent high performance – users will be able to plan routine maintenance into the machine schedule. XTS benefits from monitoring software that detects any changes to the performance of the movers such as play or excessive friction. This feature is very useful as an early warning for potential bearing wear.

HepcoMotion Guidance for Beckhoff XTS Extended Transport System

Lubrication

Regardless of which track configuration is used, a bleed lubrication system is provided ensuring both V running surfaces of the track and bearing are kept lubricated in order to achieve a long and trouble free life.

Applications for the Beckhoff XTS tend to be very demanding in respect of speeds and duty cycles making lubrication a key factor in achieving a long service life.

Hepco V guides require only small amounts of lubrication to provide excellent performance. Many different types of lubricant can be used, if you have a preference, we can advise suitability.

For simplicity, the track system with XTS benefits from grease or oil lubrication fed through bleed holes in the track straight onto the guide V surfaces. The action of the bearing running on the V distributes the lubricant as required.

In most cases a pressure fed grease canister with timed deposition is an easy to install solution; this will be fitted as standard. Alternatively you can use an automatic lubrication system.



Bearings

In a properly lubricated system, the V bearings running on the track will be the life-determining factor. Depending upon the duty, bearings may ultimately fail, but the replacement process is very simple.

A section of the track can be removed allowing all of the movers to be taken off. If it is important to minimise downtime during maintenance, pre-set carriages can be supplied which enable a very quick changeover to be achieved. The user can change and adjust the bearings on movers either on the track, or off the system using a section of slide provided for this purpose.

In normal lubricated conditions the tracks will sustain very low levels of wear or damage but will usually continue to provide good performance even when V bearings have been changed many times.

When bearings do come to the end of their life, the failure is generally benign as HepcoMotion 1-Trak or PRT2 systems are tolerant of failure, even long after some bearings have failed, satisfactory running can still be achieved. The condition of a system would usually be assessed by a simple check, with the decision to replace worn parts made dependant upon condition. It is also possible to replace wearing parts against a planned maintenance programme.

HepcoMotion track systems are durable, and it would be typical in a system operating on a 24 hours per day, 6 days per week basis for the V bearings to have a design life of several years. This would depend upon the precise details of the application.

HepcoMotion are pleased to provide application guidance, and to recommend the right specification for your application. Please contact our sales team.

For XTS Motor details / specification - please refer to Beckhoff XTS eXtended Transport System catalogue.

HepcoMotion®, Lower Moor Business Park,
Tiverton Way, Tiverton, Devon,
England EX16 6TG

Tel: +44 (0) 1884 257000

Fax: +44 (0) 1884 243500

E-mail: sales@hepcotion.com

HepcoMotion®, Bahnhofstraße 16
D - 90537, Feucht,
Deutschland

Tel: +49 (0) 9128 92710

Fax: +49 (0) 9128 927150

E-mail: info.de@hepcotion.com

HepcoMotion®- Alt de Gironella,
36-38 bajos, E - 08017,
Barcelona, España

Tel: +93 205 8447

Fax: +93 280 6214

E-mail: info.es@hepcotion.com

HepcoMotion®, 64 Chemin de la
Chapelle, Saint Antoine
95300 ENNERY, France

Tel: +33 (0) 1 34 64 30 44

Fax: +33 (0) 1 34 64 33 88

E-mail: info.fr@hepcotion.com

HepcoMotion®,Berkveld 14A
NL-5709 AE Helmond,
Nederland

Tel: +31 (0) 492 55 1290

Fax: +31 (0) 492 528 105

E-mail: info.nl@hepcotion.com

www.HepcoMotion.com