

**DriveLines** 

Power Transmission Solutions



**LinearProductRange** 

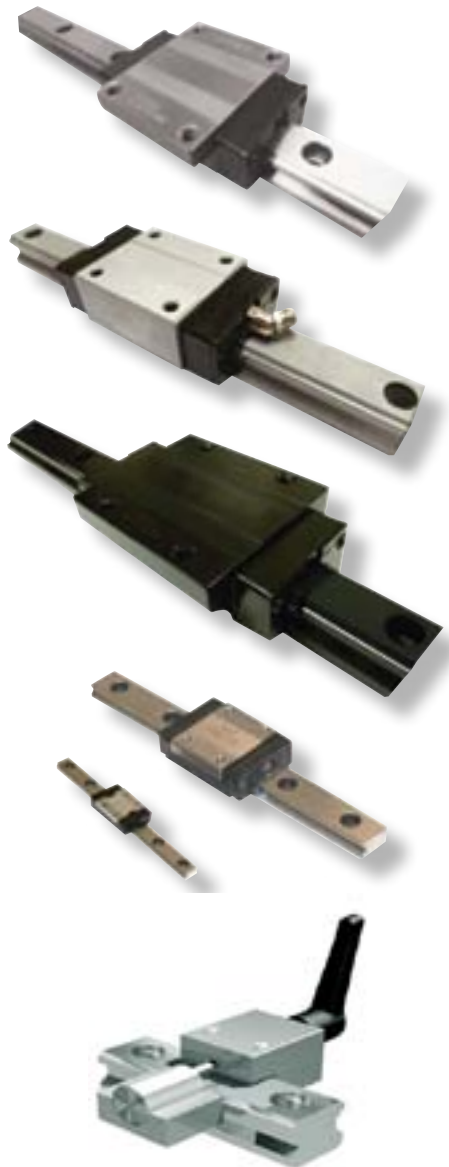
# Drive Lines Linear Ball Guides

## For commercial and industrial applications

Drive Lines Linear Ball Guides provide high precision, high capacity linear motion at cost effective prices. A perfect solution for automation, tooling and machine tool linear guidance.

Features and Benefits:

- Internal lubrication wipers for longer life
- Size interchangeable with competing brands
- Available with corrosion resistant coatings
- 2D and 3D Models downloadable



### Flanged & Non-Flanged Style Bearings

Flange style international standard height BRH or compact low profile BRS sizes. Through hole mounting from above or below.

Non-Flange international standard width, compact bearings in BRH and BRS heights. Blind hole mounting. All styles available in long and short length carriages.

### Armoloy® TDC Coating

Wash down and FDA approved Armoloy® coating for pharmaceutical and food processing applications. Cost effective and a short lead time alternative to 440C stainless steel.

### Chemi Black Coating

Improved corrosion protection and aesthetics for rails and bearings with our chemi black coating. Low cost option for very light corrosion environments.

### Miniature Ball Guides

Drive Lines supply a range of cost effective mini stainless steel ball rails in sizes 3-15mm. Available in standard and wide versions.

### Hand Clamps

Manual clamps for the linear guide ranges allow carriages to be locked into position via a lever. Please enquire for more details.

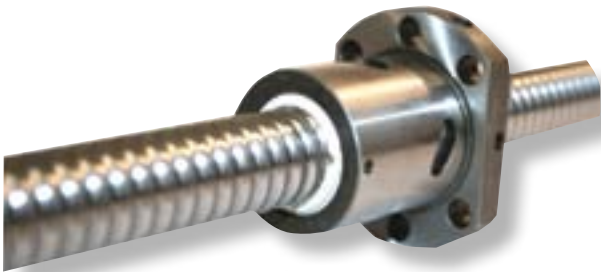
# Drive Lines Ball Screws

## For your industrial needs

Drive Lines range of precision ball screws enables cost effective high speed and high precision actuation for automation and industrial applications. With a number of styles and size options coupled with short lead times and complete machining to your requirements, we can deliver what you need, when you need it.

### Features and Benefits:

- Wide range of accuracy class C5-C10
- Preload and axial play options P0-P2 grade
- Rolled and precision ground screws
- Screw diameters from 12-80mm
- 2D and 3D models available to download



### Flange & Non Flange Nuts

International standard sizes and DIN spec nuts to suit all applications. SFS, DFS, SFI, DFI, SFU and DFU single and double length flange nuts. SCI non flange compact nuts for space saving applications. Specials on request.



### Shaft End Support Bearings

Standard size fixed and floating end support bearings. FF and FK flange style and BK, BF, EK, EF base mounted support units. Complete with locking nuts and thrust bearings included for a ready to install system. We can also supply couplings to match your motor drive.



### Shaft End Machining

Drive Lines can provide very cost effective, fast and accurate machining of the ball screw ends to suit our end bearing supports or your own design. We can work to your drawings and produce a fully machined ball screw with nut and support bearings in just 2-3 weeks.

# Drive Lines Linear Ball Bushings

## For commercial and industrial applications

Drive Lines Linear Ball Bushings range provides cost effective round shaft solutions for vertical and horizontal linear applications.

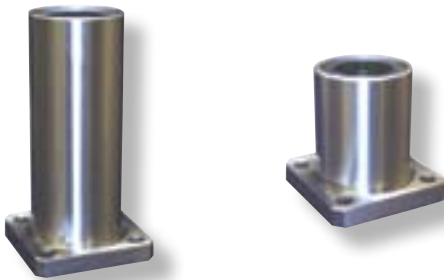
Features and Benefits:

- European and Japanese Metric standard sizes
- 100% size interchangeable with competing brands
- Wide range to cater for all applications
- Low cost and quick delivery



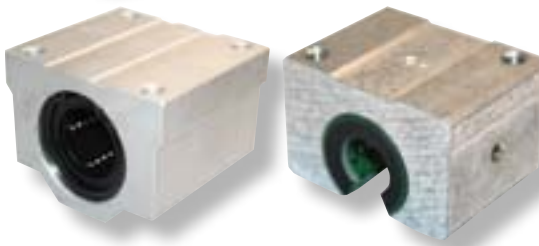
### Closed Metric Standard

LM and LME style closed bearings with circlip groove fit into your design. Thin wall KH push fit range provides compact bearing solutions.



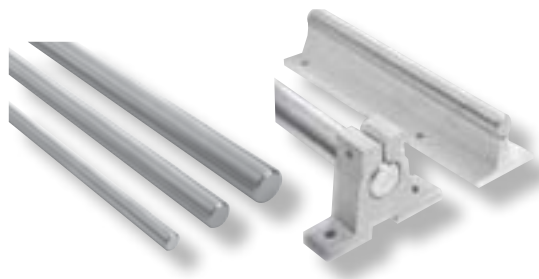
### Flanged Metric Standard

LMK and LMF single and double length flange bushings with choice of round or square flanges. Ideal for moment loads and high rigidity.



### Pillow Block Housing

Open and closed style pillow block housing with bushing inserts for plain or fully supported linear shafts. Available in standard or double length configurations. Ready to bolt on and use for quick and easy assembly.



### Precision Linear Shafting

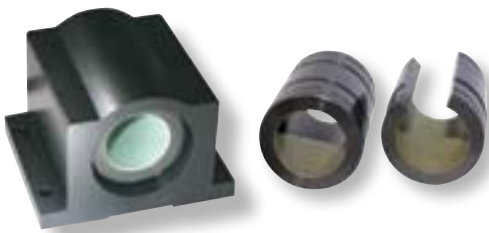
Hardened and ground linear shaft in stainless steel or steel. Soft stainless steel and hard coated aluminium shafts available for food or wash down applications. Shafts can be cut to length or machined to your requirements. Flanged shaft end support ranges and fully supported shafts available to suit all types of ball bushings.

# LM76 Plain Linear Bearings

## Linear bearings that exceed the challenge

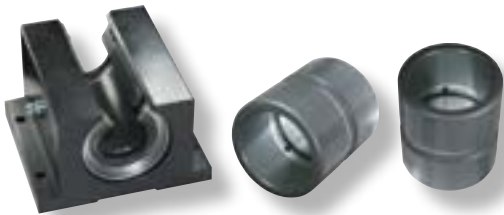
Drive Lines Technologies Ltd represent LM76, a manufacturer of plain linear bearings and linear slides. The wide range of bearing liners and coatings provides solutions for difficult and harsh environments where traditional ball bushings cannot be used. Shock loads, ultra high speeds, wash down and contamination problems can all be solved with our LM76 range.

- Suitable for shock loads and harsh environments
- Wash down and food application solutions
- Unlimited speed and acceleration designs
- Special manufacture and specifications on request



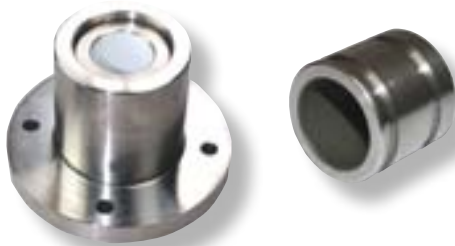
### Minuteman Self Lubricating Linear Bearings™

Self lubricating plain bearings and because LM76 PTFE composite has no abrasive fillers, it can run on hard RC60, soft 300 series stainless and anodised aluminium linear shafts. Fit and forget.



### Ceramic Coated Linear Bearings

The 'original' drop-in replacement for linear ball bearings in 1976, featuring a hardened RC89 coating over an aluminium substrate. This bearing requires lubrication, light oil is sufficient, and has broken all test records for linear distance travelled. Great for high acceleration and high speed applications.



### FDA & Stainless Steel Linear Bearings

A 304 stainless steel shell which features LM76 FDA/USDA compliant PTFE, self lubricating liner. Available in closed and open configurations. FDA Linear Motion Bearings™ give excellent corrosion protection and are wash down rated for applications which require FSD, USDA and 3A compliance.

# Combined Bearings & Rails

## For mechanical handling and heavy load applications

Drive Lines Combined Bearings provide a cost effective guide solution to lift systems, platforms and cantilever loads. The system combines a radial bearing to take out high moment loads and a smaller axial roller to eliminate side movement.

Features and Benefits:

- Welded bearing and plate assembly for quick replacement
- Load capacity up to 40kN per bearing
- Industry standard sizes for ease of interchange
- 2D and 3D models available to download



### Combined Bearings

Wide range of hardened steel roller bearings with axial side rollers. Lubricated and sealed with re-lubrication holes on larger sizes.



### Combined Bearings & Flange Plates

Welded plate and bearing assembly using chemi black coated steel flange plates available with through and tapped holes for a choice of mounting.



### I & U Section Rails

Hot rolled German steel sections in U and I configurations. Lengths up to 12 metres on request. Sections can be butt joined to achieve longer lengths.

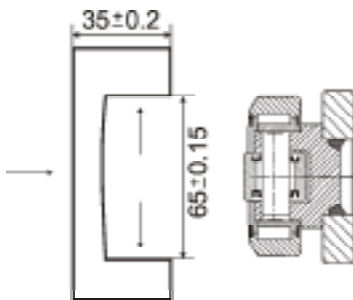


### Corrosion Resistance Coatings

In difficult or corrosive applications Drive Lines can provide Armoloy® TDC coating for the bearings and hot dip galvanising for the rails, creating cost effective corrosion resistance.

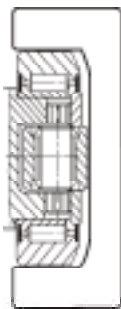
# Combined Bearings & Rails continued

For mechanical handling and heavy load applications



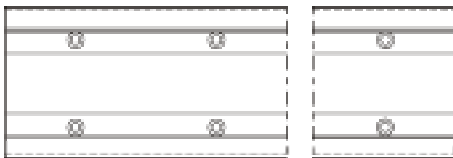
## Precision Machine Rails & Bearings

Complete precision rail and bearing combination by machining the inner radial bearing faces and back of the rail together with a larger diameter roller bearing. The running tolerances are reduced which add precision to the guidance.



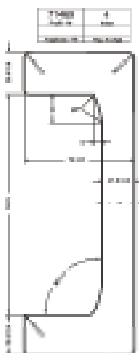
## Adjustable Bearings with Eccentric Pin

Wide range of axial adjustable rollers using an eccentric pin to minimise the gap between the axial roller and the rail and reduces need for shims.



## Precision Machine Rails to Drawing

We can offer rails machined to your drawings. Counterbored, tapped, doweled or just clearance holes can be precision machined along the rail lengths for mounting with fixings. A complete ready to use solution.



## Special Rail Section Extrusions and Materials

For special applications where a unique profile or a different material such as stainless steel is required. We can offer bespoke short run extrusions for minimum quantities. Offering the exact rail you need to suit your application with steel traceability, UT and other requirements available on request.

# USAutomation Driven Linear Stages

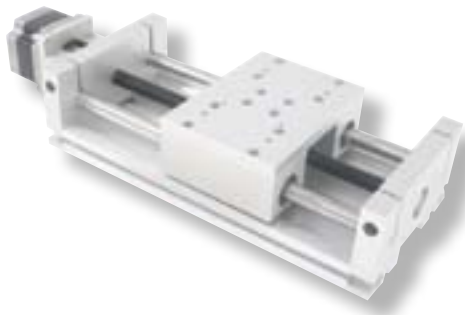
## Solutions in motion

Drive Lines Technologies Ltd represents USAutomation, an OEM supplier of innovative and cost effective motion control solutions. The range of linear positioning stages and intelligent step motors provide cost effective, precision solutions for your high tech and miniature applications.



### Microstage

- NEMA size 11 (28mm square) and size 17 (42mm square)
- Standard Travel lengths from 10-400mm, Longer on request.
- Up to 9kg load
- Anti-backlash lead screw nut
- Step motor and anti-backlash couplings included
- OEM application and modifications encouraged
- XY, XZ, XYZ and Gantry mounting hardware optional
- Travel limits and Accuriss programmable motor optional



### Twintrac

- Up to 90kg of load
- Travel lengths 6", 12", 18" and 24"
- Anti-backlash lead screw nut
- Ceramic linear bushings
- Step motor and anti backlash couplings included
- Travel limits and Accuriss programmable motor optional



### Accuriss

- NEMA size 11 (28mm square) and size 23 (57mm square) step motors
- Drive, controller and I/O built in
- Three stack lengths and holding torque from 8.3 to 262 ozf in (5.86-184.97 Ncm)
- Robust RS485 communication
- Up to 16 units daisy chained
- S curve acceleration profiles included on size 23
- Simple and highly functional command language, PC programmable
- Starter kits available



## USAutomation cont...



### Versadrive

- NEMA size 11,17 & 23 lead screw step motors
- Lead screws with Anti-backlash or plain nut
- Nuts and bushings mounted on either front or back of motor
- Motor can be full, half or micro stepped
- Unique centering bushing option
- Microstep drivers with pulse and direction inputs available

## Turntables & Slewing Rings

### Cost effective rotation

Drive Lines supply a wide range of slewing rings and ball turntables of varying sizes and capacity for cost effective solutions to material coiling, pallet rotation, tooling and assembly handling applications.



### L/N Series Turntables

- Basic specification and low cost range
- Supplied non drilled and primed for corrosion protection
- Load capacity from 0.75-4.5 tonnes
- Diameters 400-1050 mm



### KDL Series Turntables

- High capacity slewing rings with seals for demanding mechanical handling applications
- Hardened ball race, load capacity 4-25 tonnes
- Diameters 520-1200 mm
- Supplied non drilled and primed for corrosion protection



### HE/SO Series Turntables

- Wide and high mounting design
- Pre-drilled upper and lower rings
- Load capacity from 3-16 tonnes
- Diameters 685-1200 mm
- Supplied primed for corrosion protection



### SD/I/E Series Slewing Rings

- Internal, external or without gear teeth
- Diameters 200mm to 2000mm
- Load capacity to 7000kN+
- Optional heat treatment of gear teeth

# THK

Drive Lines Technologies Ltd can now source THK Linear Motion Technology products. THK is the world's leading manufacturer of linear motion products. These include precision linear guides, linear actuators and linear motion systems, ball splines, ball screws, cross roller bearings and a wide range of ancillary components.

## LM Guides

THK is the world's largest manufacturer of Linear Motion guides, with products for almost every application. Industry standard sizes were set by these guides.

HSR, SR and HRW LM ranges cover standard height, low profile and wide slide requirements. Ranges from JUP ultra high loads to HCR circular guides. Available with many options and materials / coatings to allow for special purpose – hazardous, clean room and wash down applications.



Features and Benefits:

- Four way equal load in all directions
- Automatic self adjusting
- Low centre of gravity and torsional rigidity
- High precision and high speed
- Miniature ranges down to 2.5mm high
- High load capacity
- Compact and low circular guides

## Linear Actuators

THK high performance linear actuators, based on proven LM guide technology are built in ball screw or belt drive options.

SKR high accuracy ball screws for a wide range of applications. KR cost effective, one piece construction creates a compact and competitively priced actuator. GL high speed range using ball screws or drive belt for movement up to 300mm/second.



Features and Benefits:

- Lightweight rigid construction
- High rigidity
- Extremely accurate motion
- Smooth and almost silent operation
- High speeds
- Wide range of options

## Ball Screws & Miniature Ballscrews

THK's full range of high performance and cost effective rolled and ground ball screws available. Miniature ranges and high precision lead accuracy of C3 and C5 classes available.

Ground, rolled, miniature and high speed SBN ranges in a variety of sizes and styles. High precision, high speed and long operational life requirements are all catered for, our support bearings and machining options provide complete packages.



### Features and Benefits:

- High rigidity
- Minimal backlash and preloaded options
- Fast feed speed
- High positional accuracy
- Easy to install and mount
- Miniature screw diameters from 4mm

## Extra Products

THK offers an extensive range of accessories and support products to enhance the applications and performance of their linear motion and ball screw technologies.

The extra products cover a wide range including: compact cross roller tables, ball splines, cam followers, FBW slide packs, FBL telescopic draw slides and precision cross roller rings to provide solutions to all your designs.



### Features and benefits:

- Large loads and rigid roller guides
- Preloaded ball splines for linear speed and rotational motion
- Compact and almost zero friction ball slides
- Thin and compact, infinite stroke telescopic slides
- Ultra thin, high accuracy, high load cross roller rings

# Application Advice

Contact us if you would like to discuss an application with a sales engineer or would like a site visit.

We represent the following manufacturers in the UK and Ireland:

- ADE-Werk GmbH
- Automation & Gears GmbH
- MS Graessner GmbH & Co KG
- Grob Antriebstechnik GmbH
- Heid Antriebstechnik GmbH
- IMS Gear GmbH
- LM76 Linear Motion Bearings
- R+W Antriebselemente GmbH
- USAutomation
- Wörner Automatisierungstechnik GmbH
- Zimmer Group GmbH
- ZF Maschinenantriebe GmbH

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