



moore

INTERNATIONAL LTD



Eichenberger Gewinde



SCHNEEBERGER
LINEAR TECHNOLOGY

ZIMMER
group



Certificate Number 2221
ISO 9001

Moore International was formed in 1997 after Managing Director Mark Moore and his brother Colin had been serving the local industry for 13 years with bearing and power transmission solutions to end users and OEMs. The company has achieved ISO 9001 accreditation, which is constantly being updated to keep up with the latest technology and customer trends. Since 1997 Mark has grown the company from a small, local supplier of bearing products to a highly-regarded manufacturer and distributor of ball screws, lead screws and linear products from the UK and Switzerland.

We aim to offer our customers a fast delivery service by holding good levels of stock at our large premises in Poole in Dorset. We've grown a good customer base by being able to provide products from stock, as designers and engineers don't want to wait several weeks for parts.

We've also expanded our CNC turning and milling facilities and can manufacture parts made to the customer's specific measurements and requirements. We work with a variety of materials including aluminium, stainless steel, mild steel, tecaform and peek.

We have multi-axis CNC mills, CNC lathes and manual lathes. These, together with our induction softening machine and our CMM measuring and inspection equipment, mean we are fully equipped to cater to a wide variety of needs.

Our areas of expertise include

- Ball screws
- Lead screws
- Trapezoidal screws
- Linear guides
- Linear clamps
- CNC machining
- Bearings
- Rod ends
- Hardened and ground shafting
- Couplings

Our customers include

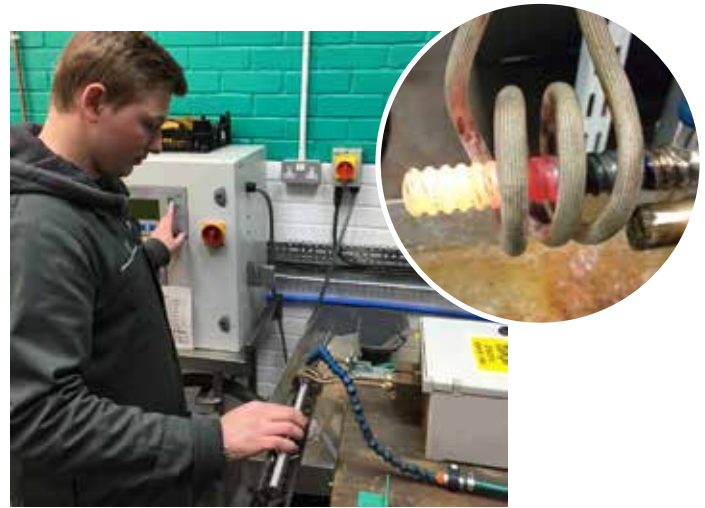
- Medical
- Defence
- Automotive
- Machine builders
- Automation
- Packaging
- Leisure
- Food and beverage industry
- Universities
- The arts

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www.moore-international.com**

In-house metal annealing (softening)

As our Swiss ball screws start life at 64 rockwell, we offer a softening service to bring them down to 52-53 rockwell, enabling you (or us) to easily machine them to their finished specifications. Annealing is a softening process in which the metal is heated to over 600°C and then left to cool. We use an in-house, state-of-the-art induction heating machine to quickly and easily heat the metal to the required temperature. This method is precise and cost-effective due to the very short time taken for the metal to heat up.



Custom ball screw nuts

Moore International can offer you a complete custom nut manufacturing facility for any of our Eichenberger ball screws, with minimum quantities for custom ball screw nuts starting from as few as 250 pieces. This really is giving you the freedom to design the nut around your product and not your product around a nut.

Custom lead screw nuts

Our team of skilled machinists can work with you to design, recommend and manufacture a lead screw nut to fit your requirements. This could be for one of our Swiss-made Eichenberger Gewinde Speedy or Rondo lead screws or a nut for a standard trapezoidal lead screw thread.



Our range of ball screws and lead screws

Moore International continuously stock up to 3-metre lengths of ball screws and lead screws in both left-hand and right-hand formats. We are able to supply screws from 4mm diameter in mild steel, stainless steel or light-weight aluminium. If you don't need a custom nut we have a large selection of standard nuts available from stock for immediate dispatch.



- ***In-house annealing***
- ***Low-cost custom ball screw nuts***
- ***Aluminium lead screws***



Eichenberger Gewinde



Moore International is the world's largest stockist of Eichenberger Gewinde ball screws and lead screws outside of Switzerland.

Carry

Ball Screws

Ball screws for applications where heavy loads must be moved with low energy consumption.

Carry ball screws are manufactured by the highly economical cold-rolling process, which offers significant cost savings but maintains a precision previously only available with machine-ground screws. Carry screws are complemented by a range of steel nuts. Sizes range from 4mm diameter to 40mm diameter with a variety of popular pitches available.



Carry offers all the advantages of the inherent ball screw design:

- high efficiency
- low power input
- low self-heating
- low friction, stick/slip free running
- maximum wear resistance, i.e. very good repetition accuracy with a constant positioning precision
- high reliability and durability

Carry Speedline

High-Helix Ball Screws

Wear-free high-helix ball screw for high moving speeds.

The patented recirculating design combines low mass with a good price.



Custom Ball Screw Nuts

Eichenberger custom ball screw nuts

Custom ball screw nuts can be ordered in quantities as low as 250 pieces. Having a custom ball screw nut made gives you the freedom to design your nut around your product and not your product around a nut. We are also able to supply special Dicronite-coated ball screws and nuts with PEEK (polyetheretherketone) ball returns. Dicronite has an ultra-low coefficient of friction, making it an excellent lubricating surface. In combination with PEEK it enables the ball screw and nut to operate in ultra-high vacuum applications.



Low-cost Swiss-precision lead screws & ball screws

Speedy

High-Helix Lead Screws

The Eichenberger high-helix lead screws are speedy by name and speedy by nature. Never before have such high moving speeds been obtained at such low rotational speeds. The Eichenberger Speedy lead screw has made this possible by using a high-helix pitch only ever dreamed of before.

Our high-helix lead screws are made of stainless steel or light-weight aluminium and are formed by the cold-rolling process. They are coupled with high wear-resistant thermoplastic nuts in standard or preloaded designs.

Sizes range from 4mm diameter to 36mm diameter with a wide variety of pitches available. For higher loads or special applications, alternative plastic materials or bronze may be used for the nuts. Moore International are able to offer custom nuts to your specification and design - please contact us for more information.



The high-helix lead screw converts rotational motion into linear motion with high moving speeds.

Rondo

Round Thread Lead Screws

Rondo screws are a true alternative to conventional trapezoidal screws. They deliver outstanding efficiency and quiet running due to their round thread profile.

Made of steel or light-weight aluminium, these lead screws are combined with plastic flange nuts. Sizes range from 6mm diameter to 16mm diameter with a variety of popular pitches available. Alternatively we can offer custom nuts to your specification and design - please contact us for more information.



The round thread lead screw with very quiet running properties.

Custom

Lead Screw Nuts

Moore International are able to machine custom lead screw nuts to drawing in the UK. This includes the essential internal thread form in various materials. Whether it's a simple design or more complex, Moore International will be able to offer a solution.



Eichenberger custom lead screw nuts

**Custom ball screw nuts from as few as 250 pieces.
Custom lead screw nuts at even lower quantities!**

Economical ballscrew drive with integrated ball return channels

The NEW type F has significant price advantages that have been made possible through the most efficient nut production and economical spindle production in the cold rolling process that's not been seen before from Eichenberger Gewinde, yet at the same time offering the highest performance you'd expect from a Swiss-made ballscrew.



End cap ball return type F; made of High-performance plastic and completely integrated in the body of the nut.

- Diameter 6-40 mm
- Pitch 2-40 mm; right-hand thread
- Flanged thread or flanged nut
- End cap ball return type F
- Integrated dirt wiper
- Extremely cost-effective

Two NEW nut designs are available -

FGF -

6x2	12x10
6x6 - New Size	12x12 - New Size
8x3 - New Size	15x20 - New Size
10x3	16x16
10x10	25x10
12x5	



FAF -

6x2	12x5
6x6 - New Size	12x10
8x3 - New Size	12x12 - New Size
8x8	15x20 - New Size
10x3	16x16
10x10	25x10

For more information on the NEW Carry Type F visit our website at www.mooreinternational.co.uk/Carry_Type_F or contact us direct for prices and availability

- **New unique sizes**
- **Low cost**
- **Integrated dirt wiper**

CNC MACHINING

In-house end journal machining

Moore International has considerable machining capabilities, which can be applied to all of the types of screws we supply regardless of diameter and type. We can work directly from your drawings, your CAD files or, if you don't have them, why not send us a sample to copy? Although all types of end machine detail can be produced, we offer a very cost-effective basic end journal machining that fits our range of support bearings. By asking us to do your machining you can reduce your scrap rates, reduce your component lead times and receive products that fit your application every time.

A custom nut doesn't have to come at a custom price!

We can offer you a complete custom nut facility for any of our lead screws. With low quantities available, you have the freedom to design your nut around the product and not your product around a nut.

Our team of skilled machinists can work with you to design, recommend and manufacture a nut to fit your requirements. This could be for one of our Swiss-made Eichenberger Gewinde Speedy or Rondo lead screws or for a standard trapezoidal screw thread.

We normally stock up to 3-metre lengths of ball screws and lead screws in both left and right-hand formats. We're able to supply screws from 4mm diameter in steel, stainless steel or light-weight aluminium. As for the nuts, if you don't need a custom nut we have a large selection of standard nuts available from stock for immediate dispatch.

Sub-con machining

We have several CNC machining centres with high-specification 4th axis CNC mills and CNC driven tool lathes with a high volume bar feeder.

We also offer sub-assembly production for your new components. Our dedicated assembly team will assemble a collection of parts to your specification, at the highest level of quality and deliver them to you with your part number attached for easy traceability.

With our large range of machines available, why not give us a call with your machining requirements?



- **R & D design - prototyping**
- **CAD files - kitting & sub-assembly**
- **Batch work - low to high volume**



Rollvis satellite roller screws

The rigid design of a satellite roller screw also known as planetary roller screws give them the ability to deliver very heavy load capacity due to the many contact points between the rollers and screw. Satellite roller screws can be up to 90% efficient and have an expected life up to 15 times longer than any ball screw equivalent. They allow for high acceleration and deceleration and in some designs could even exceed 5000 rpm, making the roller screw product a superior linear drive alternative.

- The bearing elements are threaded rollers between the screw and the nut.
- High number of points of contact enables the support of heavy loads.
- The range can include reverse roller screws and the differential type screw.
- Sizes from 3.5mm to 210mm in diameter from 1mm lead to 50mm
- Left and right-hand available
- Steel and stainless steel



Satellite roller screw Type - RV

The main elements of RV satellite roller screws are the screw, the nut and satellite rollers.

The RV Satellite Roller screw is a high precision and robust assembly where rollers do not recirculate, enabling a very stable driving torque. The screw can be used under very high speed and acceleration and the very high capacity ratings give an extended and reliable life within the smallest possible envelope.

Nut type	Dia (mm)	Lead (mm)	Ca (kN)	C0a (kN)	Efficiency	Nut type	Dia (mm)	Lead (mm)	Ca (kN)	C0a (kN)	Efficiency
RV	3.5	1	5	11	0.86	RV	10	2	13	25	0.84
RV	5	1	5	12	0.84	RV	10	4	16	25	0.86
RV	5	2	6	12	0.86	RV	12	2	15	27	0.82
RV	7	1	8	19	0.82	RV	12	5	18	27	0.86
RV	7	2	8	16	0.86	RV	15	2	19	36	0.81
RV	7	6	10	15	0.78	RV	15	5	22	34	0.87
RV	8	1	8	20	0.81	RV	18	4	23	41	0.85
RV	8	2	9	18	0.85	RV	18	5	24	41	0.86
RV	8	3	10	18	0.86	RV	18	8	24	37	0.87
RV	8	4	11	18	0.86	RV	20	3	41	95	0.82
RV	8	6	11	17	0.81	RV	20	5	44	87	0.85

Satellite roller screw Type - RVI

The RVI Inverted roller screw is based on the same principle as the RV design and has the same global performances.

The rollers themselves rotate around the screw and move axially within the nut. This concept follows specific design rules which enable higher capacity ratings with smaller leads, which consequently reduces driving torque, optimises compactness and makes a direct guiding of the shaft possible.



Nut type	Dia (mm)	Lead (mm)	Ca (kN)	C0a (kN)	Efficiency	Nut type	Dia (mm)	Lead (mm)	Ca (kN)	C0a (kN)	Efficiency
RVI	8	0.5	8	18	0.54	RVI	24	5	86	148	0.79
RVI	8	2	11	18	0.79	RVI	27	1	68	173	0.46
RVI	10.5	2	15	25	0.78	RVI	27	5	100	175	0.77
RVI	12	1	14	27	0.64	RVI	28	5	70	123	0.78
RVI	12	2	17	27	0.76	RVI	30	5	119	219	0.76
RVI	15	1	17	33	0.6	RVI	40	5	93	198	0.74
RVI	15	3	22	34	0.78	RVI	45	5	116	266	0.72
RVI	18	2	34	69	0.69	RVI	55	5	145	387	0.69
RVI	18	3	35	64	0.76	RVI	70	5	282	818	0.63
RVI	21	2	52	100	0.66	RVI	80	15	499	1221	0.6
RVI	21	8	67	90	0.85						

- **90% efficiency achievable**
- **Standard & custom nuts**
- **Selection of coatings**

- **Helicopters**
- **Automotive**
- **Defence**

Load capacity and lifespan

- The main advantage of roller screws compared to ball screws is that their admissible static and dynamic load capacities are higher. The bearing function is ensured by threaded rollers instead of balls and the load is spread over a higher number of points of contact.
- The admissible Hertz pressure is the same for satellite roller screws and ball screws. Satellite roller screws thus have a static load 3 times greater than that of ball screws and their lifespan is 15 times longer.

Speed & acceleration

- Satellite roller screws can rotate much faster and support much greater acceleration than balls crews, the RV satellite roller screws are designed so that the rollers are not recycled. This means the mechanism can support twice the rotation speed of a ball screw and acceleration can reach up to 3g.

Lead & pitch

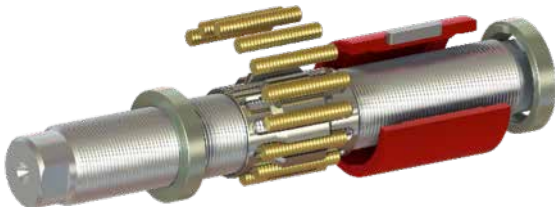
- Planetary roller screws can achieve smaller leads compared to ballscrews.
- As the lead is a function of the pitch of the planetary roller screw, the lead can be very small (0.5mm and even less). Having a lead a fraction of a millimetre (eg 3.32mm per revolution) can avoid the need for reduction gears, giving satellite roller screws another advantage over ballscrews. The lead can be chosen and realised without any geometrical changes of both the screw shaft and the nut body, which allows updates with minor changes.
- With a ballscrew the lead is limited by the dimension (OD) of the bearing ball, which is a standard feature.

Rigidity & strength

- The many points of contact give a satellite roller screw greater rigidity and shock tolerance than a ball screw.

Satellite Roller Screw Type - RVR

The RVR satellite roller screw is a design with recirculating rollers. The rollers are guided within a cage and their motion is controlled by a set of cams. This design combines extremely high positioning accuracy, resolution and stiffness, while capacity ratings are at the highest thanks to a robust thread geometry. This concept is perfect for all applications that need a very high accuracy under small or moderate speeds.



Nut type	Dia (mm)	Lead (mm)	Ca (kN)	C0a (kN)	Efficiency
RVR	8	0.5	8.7	13.7	0.69
RVR	8	1	10.4	13.3	0.79
RVR	12	1	12.8	17	0.73
RVR	16	2	14.5	20.5	0.79
RVR	20	1	23.3	44.5	0.65

Satellite Roller Screw Type - RVD

The RVD differential roller screw combines at the same time some design rules from the RV and RVI types. All components are highly engineered to reach extremely fine leads. This design typically offers leads from zero to a few tenths or hundredths of millimetres which gives unparalleled resolution. RVD screws are reserved for short stroke applications.

Nut type	Dia	Lead	Ca (kN)	C0a (kN)		Nut type	Dia	Lead	Ca (kN)	C0a (kN)
RVD	12	0	18.3	23.7		RVD	20	0	42.3	70.7
RVD	12	0.15	10.4	19.1		RVD	20	0.02	21.9	35.1
RVD	14	0.02	16.5	25.8		RVD	20	0.05	22.5	35.7
RVD	16	0	25.7	35.2		RVD	20	0.1	23.7	36.8
RVD	16	0.2	33.1	79.3		RVD	20	0.5	42.6	77.9



Please contact us for the full range of Rollvis Satellite Roller Screws

- **Lifting equipment**
- **Oil & gas**
- **Machine tools**

- **Marine**
- **Nuclear**
- **Optics & metrology**



Moore International are a key UK distributor of Schneberger linear technology products.

Schneeberger offers a broad range of products, from linear and profiled guideways through to complete linear-drive positioning systems designed especially for the customer. With rail widths available from 7mm to 100mm we can cater from the lightest to the heaviest load with many Schneberger products available from stock. If your application requires an accurate support and guide, our range of linear rails may be the answer to your design requirements. Rails can range from short lengths to lengths in excess of 6000mm. In some cases they can be attached to your application from underneath.

Schneeberger Monorail BM

Schneeberger Linear ball guides feature excellent dynamic properties and offer many commercial benefits. Designed with a small number of cleverly arranged components, they provide for excellent running properties due to the small number of transitions in the ball tracks. This leads to very quiet running, low pulsation and low friction as well as high travel speeds. Additionally, the complete sealing of the carriage guarantees maximum reliability and a long service life.



Moore International stocks a wide range of Schneberger Linear Technology products in the UK. This enables us to provide high-precision, German linear rail and carriages in a wide variety of sizes from stock for next-day delivery.

Schneeberger AMS Measuring Systems

The Schneberger AMS measurement system combines proven magneto-resistive measuring technology with an absolute or incremental digital interface.

Proven advantages of AMS products are :

- Safe magneto-resistive sensing
- One-piece lengths up to 6000 mm
- One reading head for all sizes
- Complete interchangeability of rails and reading heads



Schneeberger Minirail

Minirail represents the latest generation of miniature guideways for sophisticated applications.

They are extremely robust, yet their smooth running precision and reliability are demonstrated in every application. The design, material selection and surface finish of the recirculation element and ball entry zone guarantee low pulsation and, therefore, a smooth ride. The range includes eight rail widths which can be combined with up to four different carriage sizes.



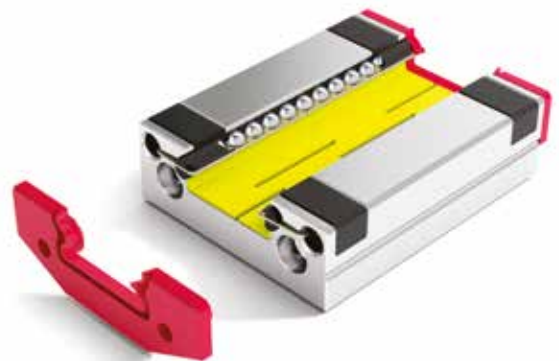
Schneeberger Miniscale Plus

The "all-in-one" Miniscale Plus is a miniature guideway with an integrated measuring system. The Miniscale, which is based on the already popular Minirail, is suitable for many applications including microscope tables, biotechnology applications and semiconductor equipment. It has a resolution of 0.1 μm and allows for measuring lengths of up to 1000 mm. Its optical measuring system is extremely small, thereby facilitating particularly compact and light designs. The range includes eight rail widths, which can be combined with up to four carriage sizes.



Schneeberger Lube-S

Minirail carriages can now be ordered with optional Lube-S lubricant. The ingenious long-term lubrication Lube-S is a lubricant reservoir. It applies the lubricant externally in all orientations directly to the ball recirculation tracks by means of a capillary effect. Lube-S is integrated into the inside of the carriage and lubricates all ball bearings that are directly under load. Lube-S ensures lubrication even during short-stroke applications.



Using the long-term lubrication Lube-S

- Maintenance-free for 20,000 km under normal conditions and load
- The carriage length remains unchanged and does not affect the maximum stroke
- Lube-S is the optimal lubricant for all short-stroke applications
- Lube-S lubricates the ball bearings which are directly under load
- The smoothness, push force and service life are maintained long-term thanks to Lube-S
- Maintenance costs are reduced substantially
- The minimal consumption of lubricant is good for the environment
- Lube-S can be easily replaced

- **Miniscale Plus**
- **Lube-S**
- **Now stocking Monorail BM**



Zimmer linear clamps for linear guideways are available from Moore International and offer a host of exciting features for your dynamic and static braking requirements.

Linear technology is drive technology in its most straightforward form – the whole system moves in one direction. Key features of this technology are low-friction running and the ability to hold the system securely or, if required, to brake securely.

The Zimmer Group develops customer-specific linear technology components and systems. They strive to meet your individual requirements in terms of technology, processing, engineering and costs.

Zimmer offer more than 4000 types of linear bearing clamp for profiled and rounded rails as well as for a variety of guide systems from all the top manufacturers including:

SCHNEEBERGER	HIWIN	ABBA	CPC	GUS	IKO	INA
MISUMI	NSK	NTN-SNR		NANJING-GOGYIS		
PMI	BOSCH REXROTH	ROLLON	SKF	TBI	THK	

It makes no difference whether you prefer manual, pneumatic, electric or hydraulic, Zimmer and Moore International will have a solution for your clamping or braking needs. Just call us for more information.

HK - manual clamping

- Suitable for a broad range of products
- Fits all common profile rail guides & round rail
- Has tool-free opening and closing (bi-stable)
- Operate by turning the clamping lever
- Maintenance-free
- Works for up to 50,000 static clamping cycles

Mini HK - manual clamping

- Small construction
- Fits all common miniature profile rail guides
- Has tool-free opening and closing (bi-stable)
- Operate by turning the knurled screw
- Maintenance-free
- Works for up to 50,000 static clamping cycles



Pneumatic clamping & braking

- Suitable for a broad range of products
- Fits all common profile rail guides
- Energise to close (NO) & energise to open (NC) available
- High durability
- Works for up to 5 million static clamping cycles



Hydraulic clamping & braking

- Suitable for a broad range of products
- Fits all common profile rail guides
- Energise to close (NO) & energise to open (NC) available
- Extremely durable
- Up to 10 million static clamping cycles



LCE - electric clamping

- Suitable for a broad range of products
- Fits all common profile rail guides
- Energy-efficient (bistable)
- Opens and closes using 24 V DC voltage
- Purely electric
- Up to 1 million static clamping cycles



Pneumatic clamping & braking element for piston rods

- Positioning of axes
- Clamping and braking in case of pressure drop
- Fixing of vertical axes
- Positioning of lifting devices

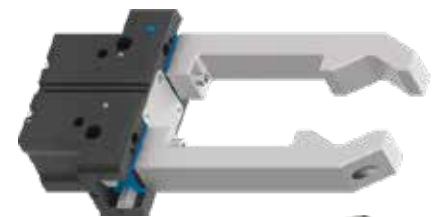


Robot Grippers

Moore International now offer the full range of Zimmer Group robot grippers. With over 2000 standardised gripper systems, positioning systems, robotools and much more, Zimmer offer a complete selection of technologically superior products that are ready for rapid delivery.

GPP5000 - The Universal Gripper

- Up to 30% more gripping force than the benchmark
- 10% more static forces and moments than the benchmark
- Gripper fingers up to 10% longer than the benchmark
- Gripper fingers weight up to 15% higher than the benchmark
- Sealed guide IP64 / Protector version IP67 (with purged air)
- Protected against corrosion
- Up to 30 million cycles without maintenance



GEP2000 - The Electric Compact Gripper

- Largest stroke in small installation space
- Adjustable gripping force
- The simplest activation



**Manual - Pneumatic - Hydraulic - Electric
Clamps for conventional round & profile linear rails**

TRAPEZOIDAL LEAD SCREWS



Trapezoidal screws are still the most commonly encountered type of screw worldwide and offer high strength that can cope with large loads. They have low efficiency, but, due to their ease of manufacture, they are a very cost-effective product.

Moore International supply a large selection of trapezoidal screws in sizes starting from 10mm diameter, in steel and stainless steel, in both left and right hand, with many available from stock for next-day delivery. We also supply imperial sizes starting from 1/8th inch diameter and 0.024" pitch.

Moore International can fully customise these screws and manufacture special custom sizes to customer specification. Standard trapezoidal nuts are available from stock; flanged, cylindrical, square, hexagon in many materials including bronze, steel, plastic, stainless steel or manufactured to customer specification in a variety of materials.



SPECIALIST COATINGS

We can offer a range of low-friction and protective coatings for our range of linear products. The products and advantages are as follows:

- ballscrews / ballnuts
- leadscrews / leadscrew nuts
- linear slides & carriages
- ball bearings
- needle bearings
- roundway shafts
- rails
- thrust bearings
- extends life
- low friction
- increased chemical and corrosion resistance
- cost reduction
- can be vacuum compatible
- micron thin coating

Our most popular coating option is from the coating specialists Armoloy®. The many benefits of Armoloy have proven invaluable in thousands of applications and are proving themselves a popular choice in our range of ballscrews and leadscrews.

Armoloy® NTDC (Nodular Thin Dense Chrome) is a hard (78HRc), thin, dense chromium coating with a micronodular surface texture. It's been developed to protect and enhance a wide range of manufacturing tools and components.

The Armoloy® NTDC coatings provide absolute adhesion and corrosion protection equal to 440 series stainless steel and can successfully coat products to ABEC 9 classification.



- **Large UK stocks of trapezoidal in steel & stainless steel**
- **Specialist coatings available for most products**
- **Extends life of components**

PRECISION GROUND

BALL SCREWS

Unlike our rolled range of ball screws, precision ground ball screws are manufactured through a grinding process of the screw spindle. This provides an advantage for many applications where they require linear drives with the highest degree of accuracy.

Features of ground ball screws

- Long lifetime
- High traverse speeds
- Low heat generation
- Very high positional accuracy
- Very high efficiency
- No axial play with appropriate pre-loading
- Less input power required
- Left & right-hand available
- Steel & stainless steel
- Custom nuts available to drawing



Precision ground ball screws are available from 3mm diameter to 225mm diameter with a range of popular pitches. As standard, lengths of up to 6 metres can be obtained.

APPLICATIONS AND INDUSTRY SECTORS

Typical areas of application

- Drives for doors, gates and windows
- Air-conditioning technology (valve/slide drives)
- Construction industry (e.g. automatic shading systems)
- Handling systems
- Graphics equipment and devices
- Medical technology
- Textile machines
- Food and packaging industry
- Electric cylinders (actuators)
- Electronics industry

Typical industry sectors

- Oil & Gas
- Aeronautics
- Space
- Defense
- Automotive
- Moulding
- Injection (plastic metal)
- Optical
- Graphics
- Special machine tools
- Medical
- Electrical actuators
- Measuring machine & laser machine
- Robotics
- Chemicals
- Semiconductors
- Packaging equipment

• *Precision ground screws from around the globe*

SUPPORT BEARINGS

Moore International offer from stock, a complete range of ballscrew and leadscrew support bearing kits. These contain the bearing housing, bearing set, cover, spacer, seal, locknut and set screw in a variety of sizes for almost every application. We're able to offer next-day delivery on many types of support bearing, pillow block and flange mounted bearings for ball screws, lead screws and trapezoidal screw, available in a variety of shaft sizes from 4mm diameter up to 50mm.

BK Type



- Precision block style screw support unit
- Fixed side with 4 counter-sunk mounting holes
- Nominal screw sizes from 10mm to 30mm

BF Type



- Precision block style screw support unit
- Side mounting with 2 counter-sunk mounting holes
- Nominal screw sizes from 12mm to 50mm

FF Type



- Flange type mount
- Simple side mounting
- Nominal screw sizes from 8mm to 40mm

FK Type



- Flange type mount
- Fixed side mounting
- Nominal screw sizes from 6mm to 40mm

AF Type



- Rectangular type mount
- Nominal screw sizes from 8mm to 25mm

EF Type



- Rectangular type mount
- Nominal screw sizes from 6mm to 20mm

EK Type



- Fixed rectangular type mount
- Nominal screw sizes from 5mm to 20mm

FKA Type



- Flange type mount
- Fixed side mounting
- Nominal screw sizes from 6mm to 20mm

WBK Type



- Heavy load mount
- Flange type mount
- Fixed side mounting
- Nominal screw sizes from 17mm to 35mm

Our range of support bearings are also available with a variety of anti-corrosion coatings or machined from stainless steel billet, as we are able to manufacture them in-house to your specification. You are not limited to standard dimensions and we are able to include a grade of bearing that suits your application requirements – please contact us for more information.

From stock

Also available in electroless nickel plating

Call us to discuss size and type

LINEAR SHAFTS

Hardened and ground shaft

Our range of precision shafts are induction-hardened as this treatment ensures a uniform surface hardness of HV 697- HRC 60 both in radial and axial direction. The stainless-steel shafts are subjected to a more stringent process to prevent excessive internal stresses, while ensuring a surface hardness of HV 595 - HRC 55.

W- Is the most commonly used as a linear ball bearing raceway. It has suitable hardness and is cost-effective (Ck55 or Cf53)

WV - Characteristics similar to W, but resistant to corrosion due to the addition of a chrome coating (Ck55 or Cf53)

WRA - Material used for its resistance to corrosion. Its hardness is medium high (X90CrMoV18 / W 1.4112)

WRB - Similar to WRA type, with a lower chemical resistance to corrosion and is more cost effective (X46Cr13 / W 1.4034)

WH - Hollow shaft for applications that require low weight or the ability to pass air, fluid or cables through (Ck60 / W1.1221)

WHV- Characteristics similar to WH type, but resistant to corrosion due to the addition of a chrome coating (Ck60 / W1.1221)

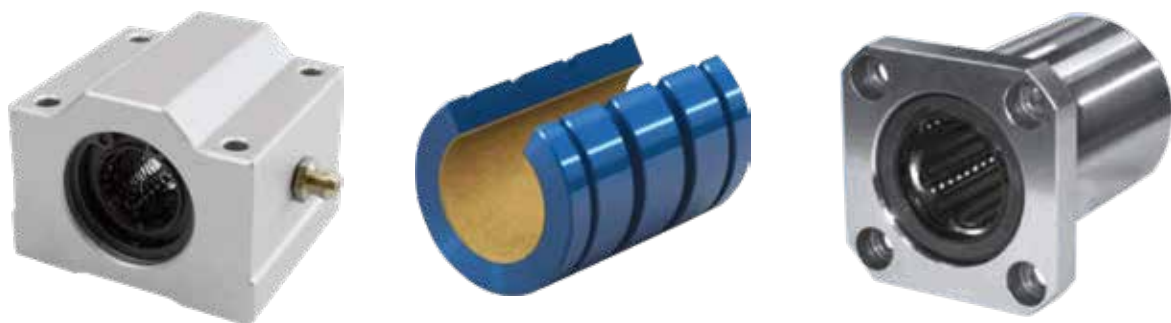
WB - Precision shaft with pre-drilled and tapped holes (see PDF for full specification)

CCM - Ceramic Coated Aluminium shaft.



LINEAR BALL BUSHINGS

Our range of linear recirculating bearings (ball bushing) are produced in both standard and precision variants. They are constructed by a cylindrical outer ring, a cage that retains the balls and by two end rings to retain the cage and/or, when required, offer contact seals. All of the components are designed and assembled to optimise the unit's performance, and the outer ring is suitably hardened to provide the longest possible life expectancy. With the inner cage made of steel, stainless steel or engineered resin, depending upon the type of bearing selected, they provide the retention and allow the proper recirculation of the balls.



- ***Stainless steel shafting***
- ***Hardened & ground shafting***
- ***A wide range of ball bushings & housings***

COUPLINGS

Helical beam couplings have a very high torsional stiffness that makes them appropriate for motion control applications where extremely accurate positioning, frequent stopping and starting, and reverse rotation is required.

- One-piece metal construction
- Bores from 1.9 mm to 19 mm (0.075 inch to 0.750 inch)
- Compensates for angular, parallel and axial misalignments
- Clamp and set screw attachment styles
- Zero backlash
- Constant velocity
- Stainless steel and aluminium versions
- Internal bore relief as standard for single beam; optional for multi-beam couplings
- High tolerance to chemicals, corrosion and heat
- Short delivery time

Jaw couplings are a three-piece design coupling that has an elastomeric element (spider) between two aluminium hubs. Our zero backlash jaw couplings are available in metric and inch bores, keyed or keyless with set screw fixing.

- Resistance to oil, dirt, moisture that makes it low-maintenance.
- Very easy to install
- low cost
- No metal to metal contact
- Separates the hubs electrically
- 90 ShA spider
- Easily replaceable spider

Oldham Coupling are a three-piece design product where between the two aluminium hubs there is a replicable centre disk. If the disk fails or wears it can be easily replaced and the coupling can work with its original performance.

Aluminium silicon insert couplings are designed to transmit torque between two shafts with no backlash.

The silicon insert (40 ShA) is positioned between the driving and the driven hubs and separates the two sides of the coupling electrically. These anti-vibration couplings are available with set screws or clamps for fixing them on the shaft and can be used in the temperature range of -50 °C to 150 °C during operation.



- **Zero backlash**
 - **Stainless steel & aluminium versions**
- Beam / Jaw / Oldham / Spider / Disc / Bellow / Safety & Locking Couplings*



Ball Transfer Units from Omnitrack

Ball transfer units are omnidirectional load-bearing spherical balls mounted inside a restraining fixture. They are identical in principle to a computer mouse / trackball (pointing device). Typically, the design involves a single large ball supported by smaller ball bearings.

Commonly used in the inverted ball up position, objects are quickly moved across an array of units, this is known as a ball transfer table, a type of conveyor system. This permits manual transfer to and from machines and between different sections of another conveyor system. They are used in airports for luggage delivery, or in industry as part of manufacturing systems.

Moore International offer three distinct ball transfer unit options -

Heavy Duty Ball Transfer Units

"Double recirculation", the Omnitrack heavy duty range of Ball Transfer Units offer maximum precision and smoothest performance. They are machined from solid steel and this design provides the highest load capacity and longest service life available. These products offer Omnitrack's "user-serviceable units" with factory spares backup.

Medium Duty Ball Transfer Units

The Omnitrack Medium Duty 'Metric' ball transfer units are machined from solid steel bar and hardened for heavy load capacity and wear resistance. These units have a reinforced machined steel top cap that protects against impact from misalignment of the conveyed item.

Main ball sizes larger than 19mm incorporate a felt seal to minimise contamination. The Medium Duty Ball Transfer units are also "Lubricated for life".

The 'M' and 'MG' series are also fitted with a single drain hole which allows for a much wider range of application uses.

Light Duty Ball Transfer Units

We also offer the Omnitrack range of light duty ball transfer units, which are ideal for conveying applications that require 'ball up' orientation. LP 'Plastic' units are non-magnetic, lightweight and offer complete corrosion resistance. Pressed steel units are lubricated for life and most types have alternative material options to suit service in diverse operating environments.



TAPER BUSHES

Taper bushes provide zero backlash connection to hubs and shafts accommodating high torque. Products are available made of stainless steel and carbon steel. Keyless bushing can be used on small shaft applications:

- Inside diameter from 4 mm to 20 mm
- Zero backlash
- Provides precise radial and axial adjustment on shafts
- Able to mount over existing keyways
- Axial and radial adjustability
- Easy installation, adjustment and removal



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GEARS

We stock and supply a variety of gears that complement our pulley range, with many items available for immediate delivery.

Gears

Through our specialist suppliers, with their state-of-the-art equipment, including gear hobbing and gear shaping machines, we can offer a comparable gear development and manufacturing service for our customers. Whether standard or custom made, all our gears are available in a range of metric and imperial sizes.

Gear Hobbing

Within their manufacturing facility our manufacturers own a range of hobbing machines, allowing them to achieve the highest quality sprockets, gears and splines with an outstanding turnaround. Gear hobbing is a cost-effective solution with highly accurate results and mainly used in the process of making spur or helical gears but can also be for the production of involute gears, cycloid gears and worm gears.

Gear Shaping

For the production of both internal and external gears our manufacturers use gear shaping machines which allow them to cut gear teeth fast with highly precise results. This method is an alternative solution to gear planning as cutting is constant and the cutting tool does not need to be stepped back. With this process they can also produce close-coupled cluster gears and splines.

Chain Sprockets

Where it is unsuitable to use gears, chain sprockets allow rotary motion to be transmitted between two shafts. Sprockets are widely used in tracked vehicles, cars, motorbikes, bicycles and any other machinery for this purpose. Our manufacturers produce a comprehensive range of chain sprockets for all sizes of British Standard chain, as well as American Standard chain. Special sprockets can be manufactured on request to suit our clients' requirements.



PULLEYS

Timing Pulleys

We can supply a range of timing pulleys to your bespoke requirements and specifications. Our specialist manufacturers can produce timing pulleys in a range of varieties and sizes at speed and great accuracy providing the best results for our customers. Timing pulleys can be found in a variety of products from optics, control systems, manufacturing, medical and linear motion products.

Vee Pulleys

These are for use with vee belts and wedge belts. Depending on your needs, these high-quality vee pulleys can be manufactured in different sizes and variations for singularly use or assembled in pairs. Vee pulleys are suitable within an extensive range of industry applications.



ANTI VIBRATION MOUNTS

We offer a complete range of mounts, which can be fixed in numerous ways with either internal, external or combination threads, and can be used in compression or shear. We offer various sizes from 8 to 150mm, with loads applied from 2kg to over 1,020kg.

Rubber to metal-bonded buffers are a range of maintenance-free energy absorbing units designed to provide an effective method of reducing vibration from light machinery, or to protect instruments from vibration and shock. These are available with male threads or female holes for ease of fitting.



We also supply engine mounts, with sizes and load capacities to suit all requirements. Many of the mounts we offer are designed to be easily installed, and many are offered as standard with an integral fail-safe device to provide shock and failure protection, limiting any damage to the application or the mounts.

Our range of mounts are designed for use on engines, generators, machines, pumps, compressors, or any other device that requires the isolation of vibration from the application, to the position it is secured to.

The majority of the mounts we offer have a bell-shaped top section, which provides protection of the rubber element from chemical / oil spillages or contamination. They also act to spread the load being applied and are a key factor in providing a fail-safe functionality.

BEARINGS

We offer a complete range and vast inventory of bearings we stock over 250,000 types of bearing at one time, from simple steel balls to individual needle rollers, from economy to quality, well known brands. Here are some of the bearings that we stock:

Miniature bearings from 1.5mm id up to 40mm id in stainless steel and flange type

- Popular metric ball bearings from 3mm id up to 100mm id
- Roller bearings
- Angular contact bearings
- Double row bearings
- Extra light bearings
- Taper roller bearings
- Thrust bearings
- Needle bearings
- Drawn cup bearings
- Cam followers
- Flat thrust
- Single or individual needles
- A range of precision matched pairs for the machine tool industry
- Ball screw support bearings
- Self lube bearings from 12mm up to 80mm

We keep all styles, and a range of stainless steel inserts

- **Over 250,000 bearings in stock**
- **Miniature bearings from 1.5mm id**
- **Aerospace bearings available**

COMPLIMENTARY PRODUCTS

In addition to the products listed in this catalogue, Moore International can offer many of the following items from stock for next-day delivery.

Chains & sprockets

We supply a range of popular chain and sprockets. The most common use of chains and sprockets can be found on machinery that requires rotary motion transmission between two gear shafts. We are able to supply parts in a variety of lengths, pitches, materials and we offer a range of roller chain attachments.

Circlips

We stock a range of popular sizes of circlips and e-clips, in steel or stainless steel, in both internal or external variants.

Disc springs

We offer a wide range of disc springs in a variety of material as they have several advantages over other types of springs.

Grease nipples

We offer a full range of quality stainless steel grease nipples, with many items available from stock for next day delivery. We supply all the relevant sizes for our range of ballscrews in a variety of fitment styles.



Klüber grease

Klüber Lubrication offers approximately 2500 different speciality lubricants, many of them developed and manufactured to specific customer requirements. Klüber is the recommended brand for our ballscrews and leadscrews.

Machine feet

We supply a range of adjustable feet and height adjusters. We offer a wide variety of base sizes, and have a range of thread sizes to suit your application, with many items in stock for next day delivery. We can supply adjustable feet, rigid feet or tilting feet, and also offer a range of conveyor feet.



Oilite bearing bushes (genuine Oilite)

Oilite has been acknowledged as the undisputed market leader in self-lubricating bearings for almost 80 years. We stock a wide variety of Oilite bearings with many items available for next day delivery and are available to buy on-line from our website.



O-rings

Our o-rings are available in many size ranges including Metric and British Standard sizes. We supply them in Nitrile, Viton and Silicone, as well as specialist grades of other materials.

Rod ends

We offer a range of rod ends including high quality Fluro, all at competitive prices. Discounts may be available if volume or repeat purchases are required.



Seals

We stock a wide selection of industrial seals, from hydraulic seals that can be used to seal the opening between components in hydraulic cylinders, to oil seals that are used in close spaces between components to help prevent the escape of lubricants or the ingress of contaminants.

Universal joints

Our standard range of universal joints start from 3mm dia to 90mm dia. The range of joints are assembled in various ways, pin to steel, hardened bushes, needle bearings and stainless steel. A wide variety of finished ends are available. We also have a range of plastic universal joints available.



- **Buy online at www.moore-international.com**
- **Large UK stock held for next-day delivery**
- **Discounts available for volume orders**

WEBSITE & E-SHOP

Our interactive website is packed full of useful information, including product-specific technical information, CAD files, catalogue downloads and more information about the range of products and services available through Moore International.

Our e-shop is continually expanding with all our core product lines represented and are available to buy online. A range of popular complimentary products are also available in our e-shop and this range is always expanding.

The site not only allows customers to buy online, but enables them to view stock levels of all products, including custom parts made especially for them by the company's expert team of turners and millers.

Customers with call-off orders can simply log in and see which of their parts are on the shelf and ready for delivery. They can also use the secure site to request duplicate invoices and pay their accounts online.



ON-SITE ASSISTANCE

Moore International offer FREE mini-exhibitions of our products at your site.

This is an excellent opportunity for your designers, engineers and sales staff to see our range of products from our key suppliers.

Why not also take advantage of our Free on-site product support? So that you can save time sourcing the right products for your application, Moore International offer FREE on-site support for your projects.

Our on-the-road sales engineer is available to review your design, inspect your application, and recommend the most effective solution from our range of products.

With thousand of standard products available from stock you may be surprised at what Moore International can supply. We're here to support you by sourcing the right products and bringing down costs and lead-times.

Thank you!

Thank you for taking the time to read our product brochure. We hope you're impressed with our wide variety of products and services.

For further information please visit our website or give us a call. We look forward to hearing from you soon.





Eichenberger Gewinde

SCHNEEBERGER
LINEAR TECHNOLOGY

ZIMMER
group



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