





Linear Engineering for Professionals

NTN-SNR (part of the NTN Corporation) has been one of the most innovative companies in bearings for decades. The NTN Group is one of the largest roller bearing manufacturer in the world. NTN-SNR has been established in the linear technology market since 1985 and strives to offer a complete and competitive product range. Their innovative range is based on a patented ball chain system.

Their broad linear range offers solutions for all applications, with linear guidance and drive systems able to be combined to meet the demands of the market. Rail guides are used in a variety of applications such as: machine tool construction, packaging and printing machine construction, building of general and special machines, aeronautical construction, automation and assembly lines, the timber and semiconductor industries, medical technology and many others.



Why use TransDev and NTN-SNR?

With over 50 years of power transmission, lifting and conveying experience, TransDev offers a high level of expertise and experience. Our Technical team members, Sales contacts and Regional Sales Engineers are ready to provide assistance in helping you specify linear products or advise on an overall solution.

TransDev offer a complete solution for linear applications. A range of NTN-SNR linear axis products are perfectly matched by guides, balls screws, bushings, supports and splines. In addition we can supply industry leading linear belting, pulleys, clamp plates, plus other linear and machine manufacturing accessories.



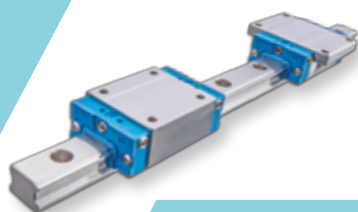
Searching for your ideal linear solution?

TransDev's Linear Solutions brochure combines genuine NTN-SNR quality with TransDev's motion expertise and complementary product ranges.

Linear



Axis 3



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Components 6

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Accessories



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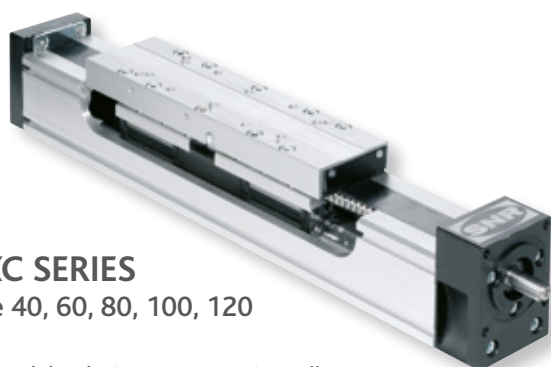
A Wide Range of Linear Axis

NTN-SNR Linear Axis are universally applicable modules that accommodate the steadily growing requirements for the automation of manufacturing processes.

They are suitable for the most diverse applications in various industries: factory automation, machine tools, electrical engineering/electronic hardware, automotive industry, printing industry, special-purpose machines, clean-room applications in the semiconductor industry and the food industry.

The modular design of NTN-SNR linear axis allows a high degree of flexibility and can fulfil almost every customer request. They can be quickly combined with each other and integrated into existing systems. This also means lower assembling costs for the end user.

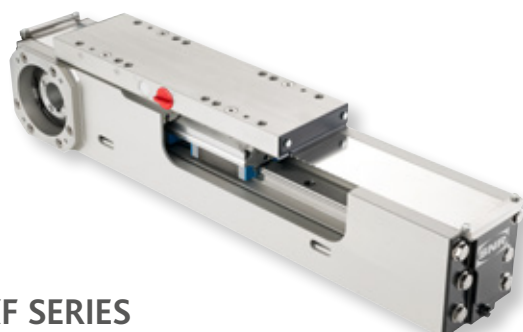
Compact AXIS



AXC SERIES

Size 40, 60, 80, 100, 120

- Modular design, system universally applicable as single-axis and in complex multiple-axis systems
- Different guiding and drive options
- Belt drive in Omega design
- Long-life and long-term maintenance free



AXF SERIES

Size 100

- Based on the AXC series.
- Available with tooth belt and screw drive
- Specially developed to prevent the deposit of residues at the profile.
- Specifically optimised for food, pharmaceutical and semiconductor industries applications

Precision AXIS



AXBG SERIES

Size 15, 20, 26, 33, 46, 55

- Extremely compact design and very rigid steel profile
- High positioning accuracy

Parallel AXIS

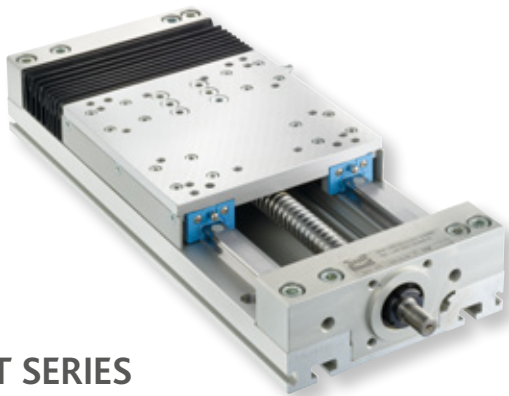


AXDL SERIES

Size: 110, 160, 240

- Profile with high rigidity (especially with synchronous belt drive)
- Protection against contamination for guide and drive system
- Long-life and long-term maintenance free

Linear Tables AXIS

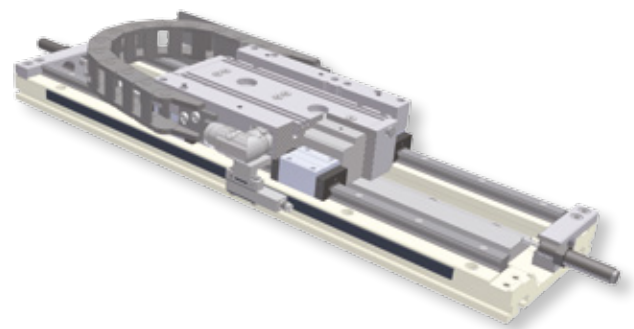


AXLT SERIES

Size: 155, 225, 325, 455

- Particularly suitable for high loads, especially torque loads
- Protected guidance and drive system via optional bellows
- Can be combined for cross table variations

Linear Motor AXIS



AXLM SERIES

Size: 155, 225, 325

- High dynamics and high accuracy
- Guidance: two parallel assembled linear guides
- Particularly suitable for high loads, especially torque loads

System AXIS



AXS SERIES

GANTRY, LIFTING
AND TELESCOPIC AXIS

Telescopic axis

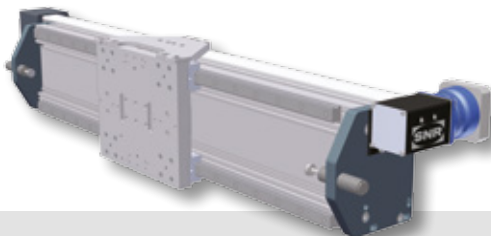
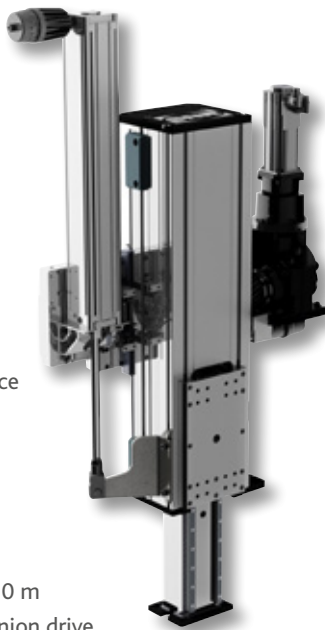
- For vertical and horizontal applications
- Suitable for use in confined installation space
- Velocity up to 10 m/s

Lifting axis

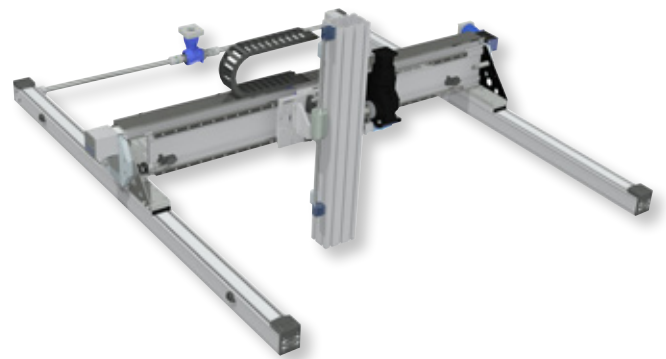
- For loads over 1000 kg

Gantry axis

- Undivided length up to 10 m
- Tooth belt or rack and pinion drive



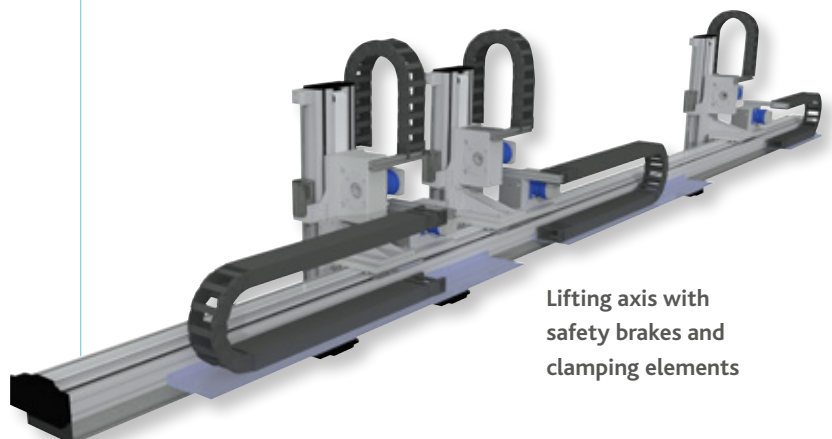
Complete Systems



Standard combinations with the AXS, AXC and AXDL range

Modular design system

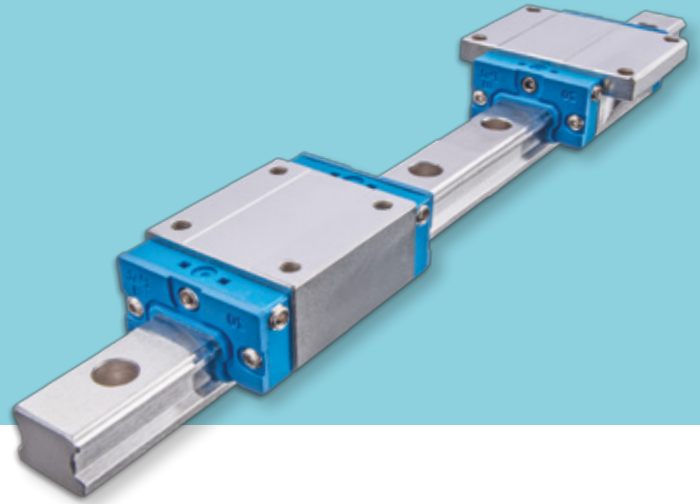
- Special solutions for specific or customised applications
- Optional with switches and energy chains, gantry support legs and all connecting elements
- Ready for installation



Lifting axis with
safety brakes and
clamping elements

Linear Guides

NTN-SNR linear guides are high-quality precision products. They combine customer-focused product development and high quality. They offer the customer a wide product range for various applications in all areas of industry.



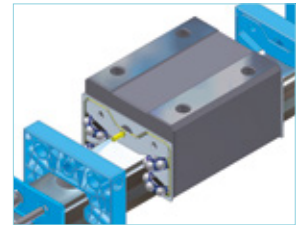
Standard Linear Guides Characteristics

- Arrangement of the race ways at a 45° angle, which results in equal load ratings in all main directions
- Low system friction with a maximum friction coefficient, μ of 0.003 due to circular arc grooves
- High tolerance compensation and error compensation capability due to DF-arrangement of the race ways
- Multitude of lubrication connections can be mounted on all sides of the carriage
- Flanged carriages allows screw connection from the top and the bottom
- Double-lip seals for optimal protection of the carriage from liquid and solid foreign particles
- Range of sealing options for special applications
- Linear guides with ball chain and conventional types on one rail
- Dimensions according to DIN 645-1 and DIN 645-2.



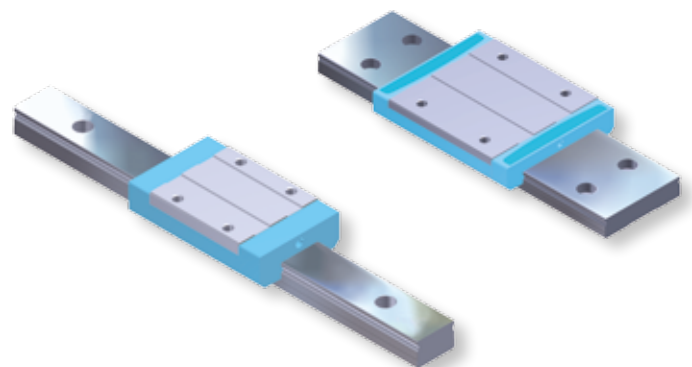
Standard Linear Guides with Ball Chains

- Low noise level
- Very quiet running due to additional spacer ball at the chain ends
- Low heat generation
- Velocity of up to 5 m/s
- Accelerations of up to 50 m/s²
- Long-term zero maintenance
- Long service life
- Patented ball chain with integrated lubrication reservoirs
- NTN-SNR miniature guides
- Compact design
- Profile rail and carriage made of corrosion-resistant material
- Available in narrow and wide rail versions
- With ball chain and in conventional type available



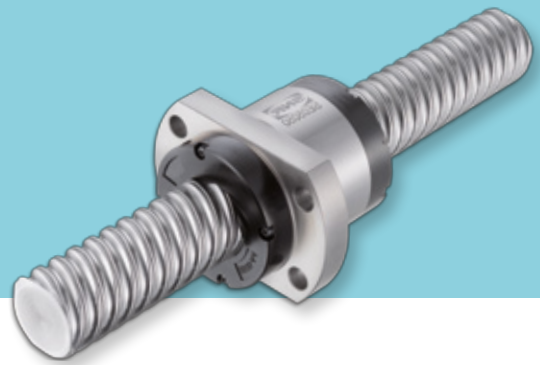
Miniature Guides

- Profile rail and carriage made of corrosion-resistant material
- Available in narrow and wide rail versions
- With ball chain and in conventional type available



Linear Components

NTN-SNR offer a range of ball screws, ball screw supports, ball bushings and ball splines.



Ball Screws

Diameter 6 to 80 mm for rolled and 4 to 120 mm for ground ball screws

- Right and left hand helix
- Customized end machining
- Fixed and floating bearing units



Ball Screw Supports

BSTK - BSTF

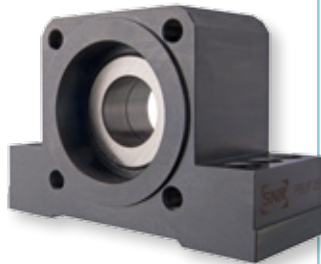
Shaft diameter 17 - 60 mm

- High load rating for vertical applications
- Easy assembling
- Long service life
- High rigidity

BK - BF - EK - EF

Shaft diameter 06 - 50 mm

- Asian range of bearing units
- Well known dimension



Ball Bushings

Diameter 3 to 150 mm

- Standard linear ball bushings and super linear ball bushings
- Standard material and stainless steel available
- Linear Sets
- Support rails, shaft supports, traverses, solid and hollow shafts



Ball Splines

Diameters for:

Cylindrical nuts 04 - 100 mm

Flange type nuts 06 - 60 mm

Rotary type nuts 06 - 60 mm

- High linear and rotation velocity
- High load rating
- Torque and force transmission by simultaneous rotation and linear movements
- Customised machining



Are you also looking for quality bearings?

- Ball bearings
- Tapered roller bearings
- Spherical roller bearings
- Cylindrical roller bearings
- Needle bearings
- High precision bearings
- Thrust bearings

Ask your TransDev Sales contact for further information on our range of NTN-SNR bearings.

Industry Leading Linear Belts

Open ended polyurethane timing belts are used extensively with linear drives, replacing more expensive mechanical alternatives. TransDev offer the market leading BRECO® Linear belts and as well as cutting to size, offer a multitude of backed and special belt options.

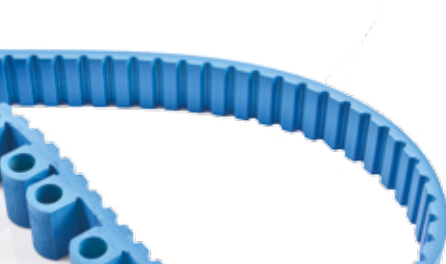


BRECO® M Belts

The extruded lengths of BRECO® M belts comprise a wear resistant polyurethane toothform encasing parallel high strength steel tension cords. The reels are extruded in lengths of 50m or 100m, although special lengths and matched pairs can be made to order. Shorter lengths can be cut to order from these reels, although minimum quantities may apply depending on the length and width required.

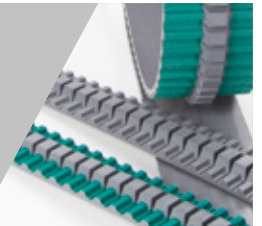
BRECOFLEX® Belts

Pairs of helically wound, continuous Steel tension members mean that BRECOFLEX® timing belts do not feature a join of any kind. BRECOFLEX® timing belts use an innovative production technique, allowing the extruded belt to be manufactured to almost any truly endless belt size. Although there is a standard range of BRECOFLEX® belts, their true strength is in their ability to be manufactured to a specific required length and to special order.



BRECObasic®

A range of low-cost timing belts that has been especially designed for standard applications in transport technology.



BRECOprotect®

A range of timing belts that include steel tension carriers that are fully embedded in polyurethane, which protects them from corrosion.



BRECOgreen®

A range of timing belts that offer an eco-friendly alternative, without compromising on performance.



BRECOFLEXmove®

A timing belt specifically designed for high-performance drives and traction drives, with a particularly high stiffness requirement.



Backed Belts

Trans-back

Many TransDev timing belts can be modified by applying one or more backings, enabling infinite different designs for conveying applications. Specific properties such as high or low coefficient of friction, soft, hard or compressible can all be achieved with a backing.

Using a thick backing affects the flexibility and hence the minimum pulley diameter, but slotting the backing can improve the flexibility. We can bond our backing materials to virtually any base belt for use as conveyor belts, haul-off belts, puller belts, forming belts and nesting belts. Haul-off and puller belts are mainly used in the plastics and cable industries to pull extruded profiles. We can currently process belts to a length of 90 metres and to a width of 600mm.



Linear Belt Accessories

A range of clamp plates, tension plates and pulleys are also available from TransDev.



Clamp & Tension Plates

Clamp plates are employed in linear technology. They are used to fasten the belt ends to the machine housing or to the unit to be moved. Clamp connectors and clamp plates are optimised for use with BRECO timing belts and are available for a diverse range of application areas.

While the clamp connectors only enable simple fastening of the belt ends, the clamp plate can also be used for setting the pretensioning force via a clamping unit. Different variants, specially optimised to the load, are available to the user within a complete clamp plate system, for individual belt types and belt widths.

Providing a complete system, comprising base plate, toothed insert, upper plate (if required), clamping unit and standard part accessories; helps avoid awkward assembly and coordination of the individual parts.

- Extensive range
- Genuine tooth profiles
- High accuracy
- Cost effective
- Special and rework options available



Standard and Custom Pulleys

TransDev supplies a complete range of pulleys, covering both our own timing belt ranges and many others too. The standard stock is further supplemented by our Special Pulley Manufacturing. If we don't stock it, or it is a special design, we can manufacture and rework to your specific requirements.

Our stock of high quality pulleys, manufactured according to relevant ISO or RMA standards, help ensure that belt performance is not compromised.

A pulley can also significantly increase belt life and reduce the total cost of ownership of your machinery, so we also offer timing belt software to help you achieve the optimum drive solution for your needs.

These positive drive pulleys are used in combination with a timing belt or a synchronised belt and can cover high speed and torque HTD drives. We stock Steel, Cast Iron, Aluminium and Plastic pulleys, which are usually supplied with retaining flanges. Timing belt pulleys are available with either a pilot or taper bore, as well as in metric and imperial variants.

- Timing belt pulleys
- Taper bore and pilot bore
- Metric and imperial variants
- Various materials available from stock
- Drive design software available



Find full details on Linear Belts and Accessories in our latest range catalogue

Chain, Gears and Racks

TransDev holds £¼ million of stock chain, sprockets, gears and pulleys available for immediate despatch. With onsite manufacturing capability we are well placed to support any standard or custom requirements.



TransDev Chain

TransDev has been supplying chain products as part of its extensive power transmission range since 1985. The range consists of major brands such as Wippermann, Witra and TYC.

Our chain range encompasses everything from premium and budget chain, to British and American standards. Materials include Steel, Stainless Steel, Nickel and Copper, with multiple variations available. As well as stocking standard chain, TransDev can also fit and manufacture special attachments. TransDev also manufactures Plastic Chain Guides (see p10).

Chain products

- Roller chain, Simplex, duplex and triplex
- Attachment chain
- Accumulator chain
- Extended pitch chain
- Heavy duty chain
- Leaf chain
- Self-lube chain
- Maintenance-free chain
- Hollow pin chain
- Straight side chain
- Sidebow chain
- Snap-on chain
- Easy break chain
- Bicycle & motorbike chain
- Kart chain

Sprocket and Platewheel Manufacturing

As one of the larger sprocket producers in the United Kingdom, we can manufacture to suit your individual requirements in a wide range of materials and pitches.



Products are supplied and finished to customer specifications, including heat treatment and protective finishes. We have the resources to manage large contracts, as well as the flexibility to meet small prototype requirements. In addition we manufacture made-to-order sprockets.

Gear Manufacturing

TransDev supplies a complete range of gear types, covering both metric and imperial pitches. The standard stock is further supplemented by our Special Gear Manufacturing. If we don't stock it or it is a special design we can manufacture and rework to your specific requirements.

Metric and Imperial Racks



- British or DIN standards
- Extensive range
- High quality
- En8 Steel, Stainless Steel 303/304 and Plastic
- Full technical support

The BIG BEAST!

To order your copy of our latest range catalogue visit www.transdev.co.uk/catalogue



Machine Accessories

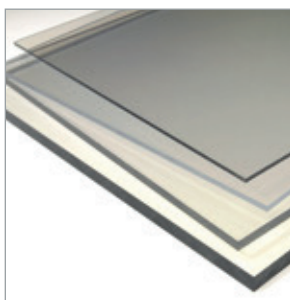
Our range of accessories provide a complete solution for machine building, maintenance and repair.



Machine Guarding

TransDev is an Authorised Perspex® Distributor. Manufactured in the United Kingdom, Perspex® has been a leading brand in Plastics since 1934 and is the market leader in Acrylic sheet.

Perspex® materials from TransDev including Cast Acrylic, Extruded Acrylic and Polycarbonate sheets are all available in a wide range of thicknesses, colours and finishes. We can help you specify exactly the right material for your machine guarding based on shape required, impact resistance and environmental factors, such as heat and UV resistance. We can also cut and machine to your required specifications.



PERSPEX™

Wear Strips & Guides

Extruded Profiles

TransDev Plastics have one of the largest range of extruded profiles in Europe. We hold a vast range of extruded profiles in stock and can extrude to your particular requirements.

Trans-plas

Transplas Belt Guides

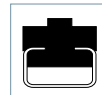
TransDev machine a range of standard profiles for Flat, Round and Vee belts. We also machine special types of belt guides.

Working closely with our Technical Belt Team we can service your design requirements



Transplas Chain Guides

TransDev machine all the standard profiles for chain for our extensive stock range. Our Chain Division supplies standard chains as well as manufacturing "special" chains with attachments and work closely with TransDev Plastics to meet special design requirements for Chain guides.

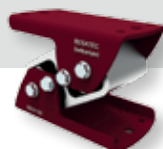


Machine Mounting

Swiss based RESATEC AG manufacture rubber suspension units and associated components. These are used for machinery installations in an enormous range of industries and are available from TransDev.

- Rubber Suspension Unit with various accessories as a mechanical engineering part
- Screen Mountings for the mounting of oscillating screens and oscillating conveyors
- Oscillating Mountings for the mounting of guided shaker machines
- Anti-vibration Mounting for the isolation and damping of nuisance vibrations
- Tensioner Device with various accessories for the tensioning of chains and belts

RESATEC





Bebox Training

In conjunction with NTN SNR, TransDev is pleased to be able to offer onsite and offsite training to help improve bearings knowledge and usage.

Training Tailored to You

The Bebox bearing box training enables an audience to see and practice different techniques with bearing mounting and dismounting. The practical workshop uses innovative, interactive teaching methods, with knowledge assessment before and after training.

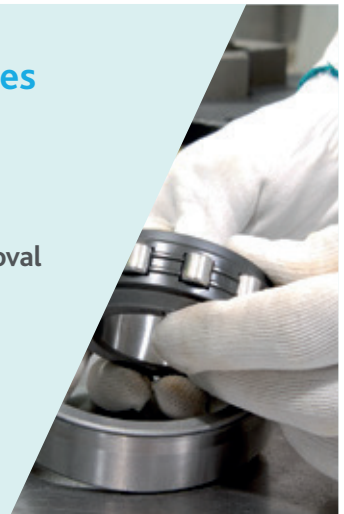
Training is a major investment therefore, the Bebox training modules take into account your industry. The content can be tuned to match your activities and the audience. NTN SNR training is fully accredited, the content is strictly controlled, thorough and permanently updated. The latest maintenance methods are dealt with in detail.

At the end of the training, work teams can review the content of their training on CD-Rom and DVD, including useful demo videos.



Training Modules

- Bearings
- Bearing units and housings
- Installation/Removal
- Lubrication
- Vibration and acoustic analysis
- Shaft alignment

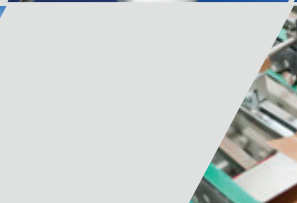
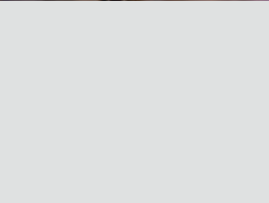


For further information please contact your TransDev sales representative.



Linear Motion Applications

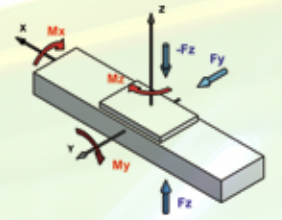
- Material Handling
- Automation
- Transport
- Energy
- Machine Tools
- Food Processing
- Packaging
- Medical & Health



Linear Motion Solutions

TransDev's Linear Solutions combine genuine NTN-SNR quality with TransDev's motion expertise and complimentary product ranges.

TECHNICAL CHARACTERISTICS



| | | SIZE | GUIDING SYSTEM | | | DRIVING SYSTEM | | | | | | «MAX. DYNAMIC LOAD CAPACITY | | | MAX. DYNAMIC TORQUE (*MAX. DYNAMIC LOAD RATING) | | | PROTECTION VERSION | | | MAX LENGTH (metres in one part) |
|------|--|-----------------------------------|----------------|------|---|----------------|---|---|---|---|---|-----------------------------|--------|---------|--|---------|---------|--------------------|---------|-------------|------------------------------------|
| | | | B, C, D, E | L, M | P | A, Y, Z | S | T | G | M | E | Fy [N] | Fz [N] | -Fz [N] | Mx [Nm] | My [Nm] | Mz [Nm] | Cover strip | Bellows | Cover plate | MAX LENGTH (metres in one part) |
| AXC | | 40, 60, 80, 100, 120 | | | | | | | | | | 10500 | 10500 | 10500 | 140 | 2150 | 2150 | x | | | 8** |
| AXF | | 100 | | | | | | | | | | 7000 | 7000 | 7000 | 200 | 325 | 325 | x | | | 6 |
| AXBG | | 15, 20, 26, 33, 46, 55 | | | | | | | | | | 86,4* | 86,4* | 86,4* | 3153* | 3190* | 3802* | | | x | 1,489 |
| AXDL | | 110, 160, 240 | | | | | | | | | | 12500 | 12500 | 12500 | 1050 | 2250 | 2250 | x | | | 6,35 |
| AXLM | | 155, 225, 325 | | | | | | | | | | 37070 | 51270 | 22870 | 2350 | 5220 | 5220 | | x | x | 3,2 |
| AXLT | | 155, 225, 325, 455 | | | | | | | | | | 33000 | 33000 | 33000 | 5000 | 4700 | 4700 | | x | | 3,2 |
| AXS | | 110, 120, 200, 230, 240, 280, 460 | | | | | | | | | | 29000 | 29000 | 29000 | 5500 | 7500 | 7500 | | | | 10** |

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* with 2 long carriages ** undivided



**The Transdev Range Catalogue is
your source For Linear Accessories**

Ask your TransDev sales contact or visit
www.transdev.co.uk/catalogue to order yours!

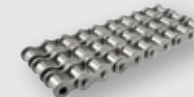
T +44 (0)1202 675 555 F +44 (0)1202 677 466 E sales@transdev.co.uk



Linear Belts and Plates
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Pulleys
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Chain & Sprockets
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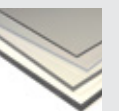
Gears & Rails
See page 619



Machine Mountings
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Wear Strips
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Plastic Guarding
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Notes

Let our experts help you make your project a reality.

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transdev.co.uk



Power Transmission and Conveying Solutions since 1965

Founded over 50 years ago, TransDev are major manufacturers and stockists of major timing and conveyor belt and chain brands; with in-house customisation available.

We are the UK's largest manufacturer of Pulleys, Gears and Sprockets. Large gear, pulley and sprocket stocks for rapid rework and made-to-order are a speciality. We are also a 'one stop shop' for Plastic materials, machining, routing and injection moulding.



Request your full catalogue at transdev.co.uk



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