

Electric Motion

Electric Cylinders, Linear Axis
and Multi Axis Systems



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Breakthrough Engineering for a Better World

Norgren is part of global engineering organisation IMI plc. IMI is at the forefront of delivering the solutions we need in a changing world and is focused on **creating tremendous value by solving key industry problems in attractive markets and employing the best.**

Norgren has a proud history of creating innovative engineering solutions in precise motion control and fluid technology, and we collaborate with our customers across more than 50 countries in critical areas such as Factory Automation, Material Handling, Rail, Food & Beverage, Process Control, Life Science and Commercial Vehicles.

From improving speed, productivity, reliability and efficiency of equipment, to generating significant energy and cost savings, or lowering total cost of ownership across many industries, Norgren's high-quality solutions are designed to help customers pursue progress, achieve new goals and overcome problems.

With market-leading industry expertise, we offer the capability, resources, engineering intelligence and global support infrastructure to tackle the largest project demands.

Our world-class portfolio of fluid and motion control products include Norgren, Bimba, Buschjost, FAS, Herion, Kloehn and Maxseal. Supplied either individually or combined into powerful customised solutions to meet customer needs.

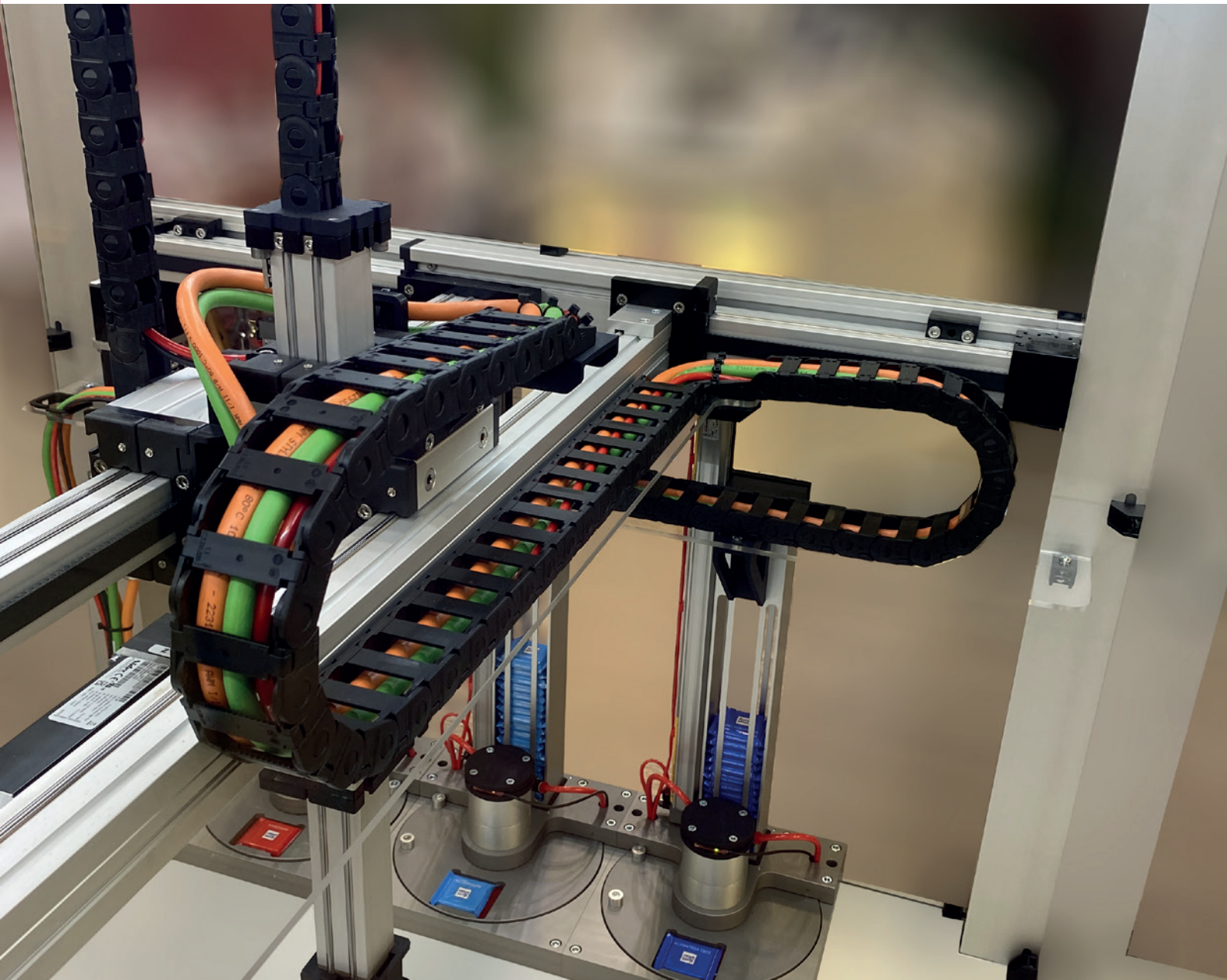
Breakthrough Engineering you can count on.

Benefits of Electric Motion

Designed to meet our customers' requirements, we now offer an expanded range of high-performance Electric Motion solutions suited to a variety of industrial applications across Material Handling, Pharmaceuticals, Food & Beverage, Battery Production and Factory Automation sectors.

Our Electric Motion solutions include Rod Style Electric Cylinders, Rodless Linear Axes and custom built cartesian and gantry systems for Multi-Axis applications. Our wide range of drive, guide and profile options (with over 10,000 possible configurations) allow us to individually design solutions that offer customers complete flexibility.

The requirements for modern industrial automation applications are becoming increasingly complex, and whether its precise control, accurate positioning, repeatability or wear-free operation - our Electric Motion products are built on over 30 years of extensive application experience, to deliver Breakthrough Engineering you can count on.



Electric Motion

Norgren's Electric Motion solutions are designed to meet the most demanding performance requirements. We offer an unparalleled engineering service including Application Engineering support, complete 3D CAD models & drawings, and life & cycle time calculations.

To ensure we meet your exact specifications and to guide you in choosing the right solution for your application, our experienced technical team provide comprehensive needs assessment, advice, and technical support from design through to delivery.

- » Technical consultation and needs assessment
- » Complete offer within 48-hours with 3D model, drawings, life and cycle time calculation
- » Gearbox and motor dimensioning on request
- » Structural analysis for critical applications on request
- » Guidance on specialist applications such as ATEX/Ex-Proof, Cleanroom etc.
- » Design of project-specific special components and accessories such as energy chains and support frames
- » Repair, maintenance and spare parts for any system



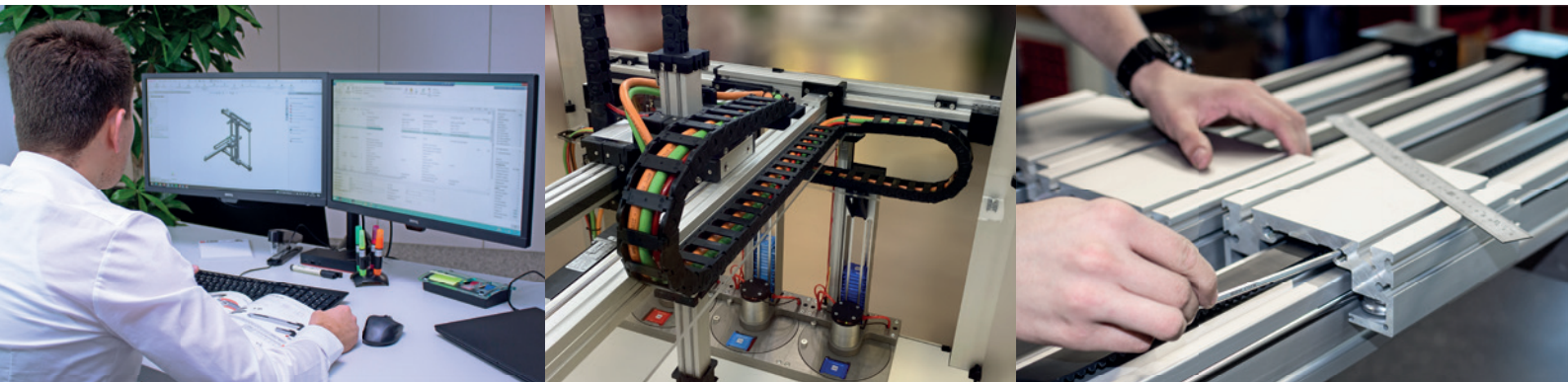
Fast response to queries



Application Engineering



After Sales Service & Support



[We offer a one-stop shop for your Electric Motion needs]

Customised Accessories



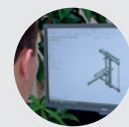
Custom-built configurations and manufacturing



Technical consultation



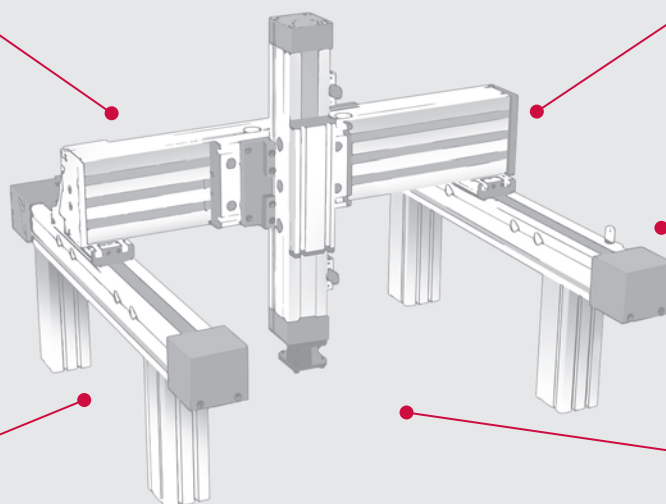
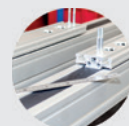
CAD simulation and analysis



Calculations and FEA analysis



Best-In-Class Service

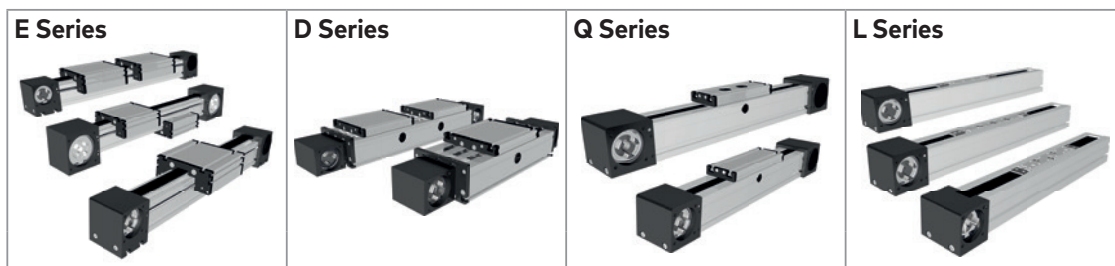


Fast Find Guide

Electric Cylinders



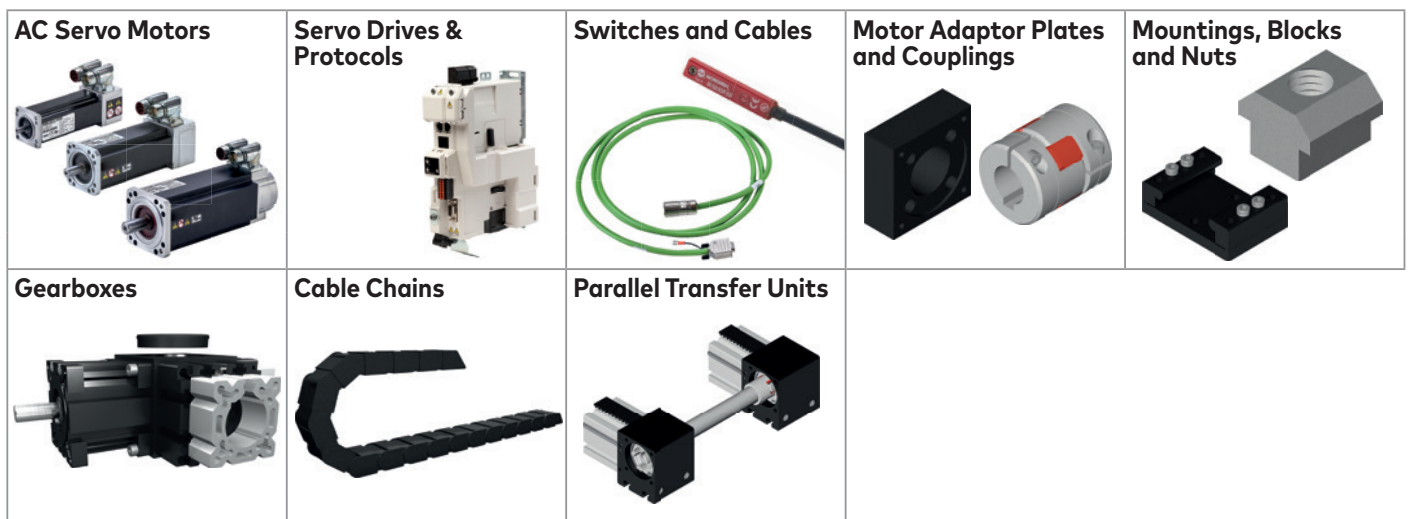
Linear Axis



Multi Axis Systems



Accessories



Options

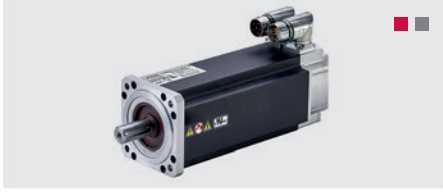
		Guide options			Drive options				
		Sliding Guide	Roller Guide	Rail Guide	Spindle	Belt	Rack	LinearMotor	
Electric Cylinder	 E/809000 Series	●	○	○	●	○	○	○	<ul style="list-style-type: none"> » Based on ISO 15552 standard » Suited for applications with high force & repeatable positioning requirements » IP65 rated options for operation in wet and dusty environments
Linear Axis	 E Series	●	●	○	●	●	●	○	<ul style="list-style-type: none"> » Robust in harsh environments » Long traverse path » Suited for use in potentially explosive areas » Easy maintenance » Dynamic
	 D Series	○	●	●	●	●	●	●	<ul style="list-style-type: none"> » Twin integrated internal guides for heavy-duty applications » Robust in harsh environments » Suited for use in cleanroom environments
	 Q Series	○	●	●	●	●	○	○	<ul style="list-style-type: none"> » Suited for use in cleanroom environments » Flexible mounting position » Long traverse path » Dynamic
	 L Series	○	●	●	○	●	○	○	<ul style="list-style-type: none"> » Compact, lightweight design » Flexible mounting position » Long traverse path » Dynamic
Multi-Axis Systems	 ELZI Series	○	●	○	○	●	○	○	<ul style="list-style-type: none"> » Dynamic X/Z portal » Compact, lightweight design » Suited to pick and place applications requiring high acceleration
	 ELZU Series	○	●	○	○	●	○	○	<ul style="list-style-type: none"> » Surface portal with 2 Y-axis and a single X-axis » Compact, lightweight design » Suited for pick and place applications requiring high acceleration

	Drive options				Guide options		
	Spindle Drive	Tooth belt Drive	Rack & Pinion Drive	Linear Motor Drive	Roller	Rail	Slider
Dynamic (v, a)	●●○○	●●●●	●●●●	●●●●●	●●●●●	●●●○	●○○○
Stroke	●●○○	●●●●●	●●●●●	●●●●●	○○○○○	○○○○○	○○○○○
F Axial Force	●●●●●	●●●○○	●●●○○	●●○○○	○○○○○	○○○○○	○○○○○
F Vertical Load	○○○○○	○○○○○	○○○○○	○○○○○	●●●○	●●●●●	●●●●●
Repeatability	●●●○○	●●○○○	●●○○○	●●●●●	○○○○○	○○○○○	○○○○○
Maintenance	●●●○○	●●●○○	●●●○○	●●●○○	●●●○	●●●○	●●●●●
Lifetime	○○○○○	○○○○○	○○○○○	○○○○○	●●●○	●●●○	●●○○○

Accessories

- Electric Cylinders
- Linear Axis

AC Servo Motor



- » Axially or parallel assembly in four positions
- » Wide torque range
- » IP65 (motor only)
- » Low inertia for high dynamic performance
- » UL/CUL, CE and RoHS Compliant

Servo Drive & Protocols



- » Supports range of machine control options
- » Advanced motion controller on board
- » Small footprint, just 40 mm wide
- » Protocols: Ethernet/IP, PROFINET, PROFIBUS, EtherCAT, CANopen and DeviceNet

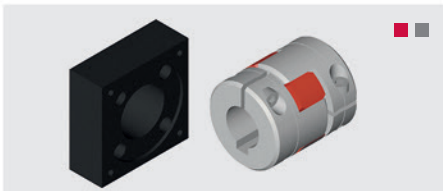
Switches and Cables



Wide range of:

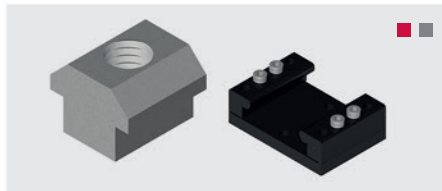
- » Switches
- » Cables
- » Magnetic strips
- » Holders for sensors

Motor Adaptor Plates & Couplings



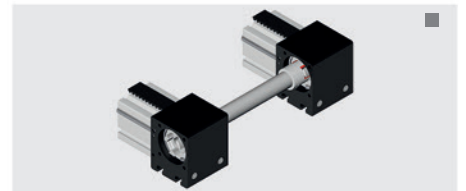
- » Adaptor plates for mounting a wide range of motors
- » Wide range of couplings for connecting motor shafts to drive shafts

Mountings, Blocks and Nuts



- » Cylinder foot mounts
- » Mounting nuts and blocks for assembling Linear Axes to machine framework
- » Jointing blocks for unlimited stroke.
- » Angular bracket for robust gantry system combination

Parallel Transfer Units



- » Belt transfer units for Spindle driven Linear Axes
- » Connection shafts for Tooth belt driven Linear Axes

Application Examples

We develop customized solutions for every requirements profile, from individual parts to serial production, and we offer the right Eelectric Motion technology for every industry segment.



Mechanical and Systems Engineering

- » Coating, painting, welding, measuring and forming plants
- » Glass, stone and wood working machinery



Lifting and Materials Handling Technology

- » Bottling and dosing systems
- » Electromechanical lifting systems
- » Lift systems



Pharmacy Automation

- » Automatic picking system



Packaging Technology

- » Labelling and packaging equipment
- » Systems for cartoners, loaders, packers and deliverers



Automation and Electrical Engineering

- » Assembly lines and storage systems
- » Assembly and handling systems
- » Measuring and inspection equipment



Food Industry

- » Food and animal food production



Chemical and Pharmaceutical Industry

- » Mixing, testing and dosing equipment
- » Laboratory applications
- » Clean-room conditions



3D Printing

- » Rapid prototyping
- » Industrial 3D printing
- » Sintered metal process
- » Architectural projects

Electric Cylinder - E/809000 Series

A range of ISO standard rod-style, ball screw electromechanical linear cylinders available with or without servo motors, in 6 bore sizes with 2 motor mounting options.



» **Accurate and Repeatable**

Ball screw and servo motor provides accurate and repeatable positioning

» **Long Life**

Ball screw and bearing mechanisms enable high cycle life

» **Ease of Installation**

Based on ISO 15552 standard with universal mounting options

» **Environment**

IP65 options for both axial and parallel mounted motors ensure cylinders will continue to operate in dusty and wet environments

» **Performance Monitoring**

Integral sensors and external switches monitor cylinder performance and enable planned maintenance

» **Energy Saving**

Electromechanical components efficiently convert electricity to mechanical power, only energised when movement is required, reducing energy consumption and the cost of ownership

» **Safety in Service**

Servo motor with optional integrated holding brake enables cylinders to self-lock when the power is isolated

» **Industries**

Carefully selected materials and product specifications suitable for a variety of applications

» **Smart Configurations**

Our online configurator enables quick and easy product selection based on customer application input

» **Flexible Service**

Customised motor interfaces allow customers to fit their own preferred motors

» **One-Stop Shop**

Motors, drives and accessories are available

Technical Specifications

- » Ball screw cylinders with or without servo motor
- » 6 bore sizes
- » 2 motor mounting options
- » Robust construction
- » Based on ISO 15552
- » Maintenance free
- » IP65 protection (optional)
- » Built on reliable & long-life Norgren technology
- » Wide range of motors, drives & accessories

Optional

- » Piston rod extension
- » Internally threaded piston rod
- » Piston rod bellows



» 32, 40, 50, 63, 80, 100 mm



» Operating temperature
Cylinder: 0°C to +80°C
» Ambient temperature
Motor: 0°C to +40°C



» Max. 1.6m/s



» Up to 30.4kN



» 100 mm - 1500 mm stroke



» Protection Class IP40 or IP65



Accurate and repeatable

Long life

Low noise level

Ease of Installation

Energy saving

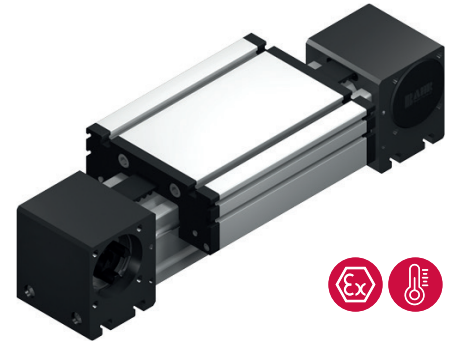
Linear Axis - E Series

ELZ range

For Standard Industrial Applications

Tooth belt driven Linear Axis range with a square, Aluminium profile and integrated hardened Steel guide rods.

- » The carriage runs on internal linear ball bearings that can be adjusted free of play
- » The pulleys have maintenance-free ball bearings
- » Belt tension is adjusted via simple screw adjustment device in carriage
- » Multiple units can be assembled in series to achieve extended strokes
- » Carriage can be customised to include extensions and accessories mounted within the profile
- » NORDKAP certified and ATEX rated versions available



Tooth Belt Drive



Double Roller - Single Guided



» 30 - 40 - 60 - 80 - 100 - 125 mm



» Up to 5750 N



» Up to 6m (standard)
» Up to 20m (with axes joined in series)



» ± 0,1 mm



» 10 m/s
» ATEX: 1m/s



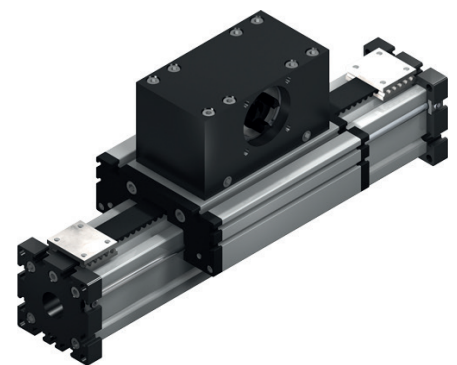
» Low maintenance

ELSZ range

For Standard Industrial Applications

Toothbelt driven Linear Axis range with a square, Aluminium profile and hardened Steel guide rods.

- » Omega belt system provides flexibility with mounting, making this range ideally suited for vertical installations.
- » The carriage runs on internal linear ball bearings that can be adjusted free of play
- » The pulleys have maintenance-free ball bearings
- » Belt tension is adjusted via simple screw adjustment device in carriage
- » Alternative versions available with widened belt for higher load capacity



Omega Tooth Belt Drive



Double Roller - Single Guided



» 30 - 40 - 60 - 80 - 100 - 125 mm



» Up to 5750 N



» Up to 6m (standard)
» Up to 20m (with axes joined in series)



» ± 0,1 mm



» 10 m/s
» ATEX: 1m/s



» Low maintenance

Linear Axis - E Series

ELT / ELK range

For Standard Industrial Applications

Spindle driven Linear Axis range with a square, Aluminium hollow section with integrated, parallel, ground and hardened Steel guide rods.

- » The carriage is driven by a rotating trapezoidal/ball screw threaded spindle connected to the carriage by a ball nut
- » The carriage has play-adjustable ball-bearing rollers which engage with the guide rods
- » The connecting slot between carriage and ball nut is covered by a stainless steel strip providing protection against splash water and dust ingress
- » Lateral adjustment of movement for parallel units, or where twin carriages are mounted, is provided by the ball nut mounting



Spindle Drive



Double Roller - Single Guided



» 30 – 40 – 60 – 80 – 100 – 125 mm



» 12000 N



» 3000 mm



» ± 0,025 mm (K)
» ± 0,2 mm (T)



» ± 1 m/s (K)
» ± 0,4 m/s (T)



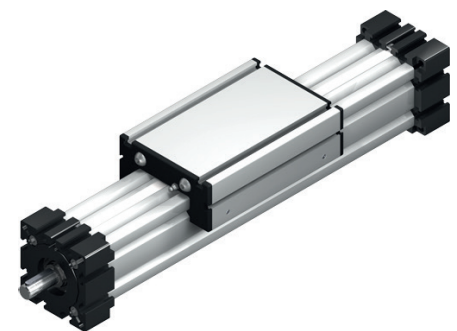
» Low maintenance

EGT / EGK range

For Standard Industrial Applications

Spindle driven Linear Axis range with a square, Aluminium profile and sliding guides.

- » The carriage is driven by means of a trapezoidal/ball screw threaded spindle with lead screw
- » Guided by lateral V-slides that are adjustable free of play
- » The linear opening of the unit is sealed with a stainless steel strip providing protection against splash water and dust ingress
- » The leading-nut receiver can be used to adjust the symmetry of the carriages where two linear units are used in parallel or where twin carriages are mounted



Spindle Drive



Sliding Guide



» 30 – 40 – 60 – 80 mm



» 3500 N



» 3000 mm



» ± 0,025 mm (K)
» ± 0,2 mm (T)



» ± 1 m/s (K)
» ± 0,4 m/s (T)



» Low maintenance

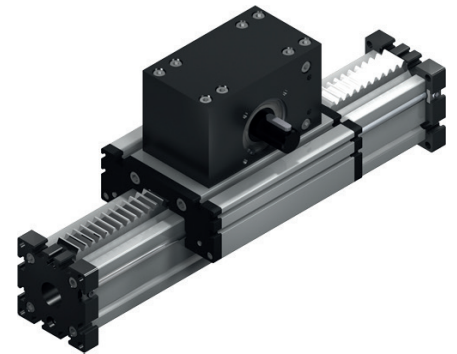
Linear Axis - E Series

E Series ELZA/ELDZA range

For Standard Industrial Applications

Rack and Pinion driven Linear Axis range with a square, Aluminium profile and integrated hardened steel guide rods.

- » The carriage runs on internal linear ball bearings that can be adjusted free of play
- » The pinion is equipped with maintenance-free ball bearings
- » The ELDZA range includes our new, innovative guiding profile which can be used effectively in combination with standardized toothed racks
- » Multiple units can be assembled in series to achieve extended strokes



Rack and Pinion Drive



Double Roller - Single Guided



» 40 – 60 – 80 – 100 mm



» 2500 N



» Up to 6m (standard)



» ± 0,1 mm



» 3 m/s



» Low maintenance

Additional ranges

Linear Axis with Tooth Belt Drive



ELFZ



- » Belt drive
- » Pulley principle
- » Vertical installation position

ELFZ EX



- » Belt drive
- » Ex guide
- » Pulley principle
- » Vertical installation position



ELHZ



- » Internal belt drive
- » Clean room
- » Horizontal Tooth belt
- » High dynamics



ELSD



- » Belt drive with rotary shaft
- » Omega system
- » Vertical installation position
- » Gripper adaptation
- » Rotational movement

ELVZ



- » Internal belt drive
- » Clean room
- » Vertical Tooth belt
- » High dynamics
- » Additionally with two carriages moving in opposite directions



ELZ-NK NORDKAP



- » Belt drive
- » Deep-freeze conditions
- » Long service life
- » Food industry
- » Reliability



Linear Axis - E Series

Additional ranges

Linear Axis with Tooth Belt Drive



ELZ-W



- » Higher profile stability
- » Higher force fixture
- » Long traverse path

ELZD-W



- » Belt drive
- » Higher profile stability
- » Independent carriages
- » Higher force fixture

ELZ EX



- » Belt drive
- » Universal system
- » Ex-guide
- » High speed

ELZG



- » Tooth belt drive with revolving tooth belt
- » Universal system

ELZT



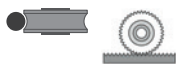
- » Telescopic belt drive
- » Omega system
- » Vertical installation position
- » Cantilever axis

ELZZ



- » Belt drive
- » Two separately driven carriages
- » Universal system
- » Higher force fixture
- » Compact design

Linear Axis with Rack And Pinion Drive



ELZQ



- » Rack and pinion drive
- » High load capacity
- » High rigidity
- » Lifting system
- » High operational reliability

Linear Axis without Drive



E



- » Combination unit for use with single axis systems

ELR



- » Combination unit for use with EL spindle multi axis systems

ELRZ



- » Combination unit for use with EL belt multi axis systems

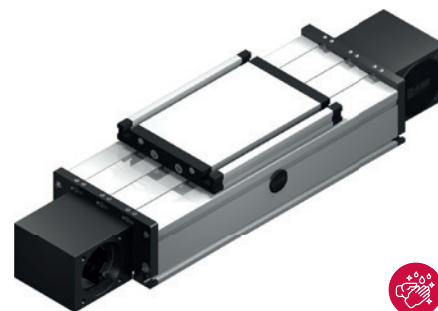
Linear Axis - D Series

DLZ range

For Heavy Duty Industrial Applications

Toothbelt driven Linear Axis range with a rectangular, Aluminium profile.

- » Twin integrated roller guides ensure this range is suitable for heavy duty applications with heavy loads and high moments
- » Each standard pulley has got one coupling claw on one side
- » Belt tension can be readjusted by a simple screw adjustment device in the carriage
- » Openings in the guide body are sealed with stainless steel cover bands providing protection against splash water and dust ingress (cover bands are optional)
- » Multiple units can be assembled in series to achieve extended strokes
- » Certified for use in Clean room applications (ISO-5)



Tooth Belt Drive



Double Roller - Double Guided



» 120 – 160 – 200 mm



» 3800 N



» Up to 6m (standard)



» ± 0,1 mm



» 8 m/s



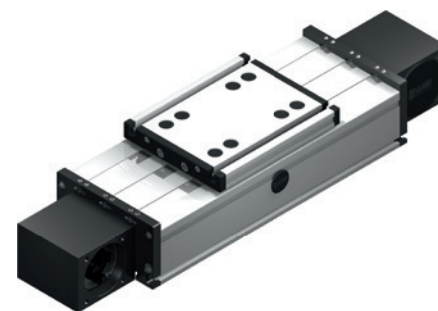
» Low maintenance

DSZ range

For Heavy Duty Industrial Applications

Tooth belt driven Linear Axis range with a rectangular, Aluminium profile.

- » Twin integrated rail guides ensure this range is suitable for applications handling exceptionally heavy loads
- » Each standard pulley has got one coupling claw on one side
- » Belt tension can be readjusted by a simple screw adjustment device in the carriage
- » Openings in the guide body are sealed with stainless steel cover bands providing protection against splash water and dust ingress (cover bands are optional)
- » Multiple units can be assembled in series to achieve extended strokes



Tooth Belt Drive



Twin Rail Guides



» 120 – 160 – 200 mm



» 3800 N



» Up to 6m (standard)



» ± 0,1 mm



» 4 m/s



» Low maintenance

Linear Axis - D Series

DLT / DLK range

For Standard Industrial Applications

Spindle driven Linear Axis range with a rectangular, Aluminium profile.

- » Twin integrated rail guides ensure this range is suitable for applications handling exceptionally heavy loads
- » The carriage is driven by means of a rotating spindle with leading nut
- » The leading-nut receiver can be used to adjust the symmetry of the carriages where two linear units are used in parallel or where twin carriages are mounted
- » Openings in the guide body are sealed with stainless steel cover bands providing protection against splash water and dust ingress



Spindle Drive



Double Roller - Double Guided



» 120 – 160 – 200 mm



» 8000 N



» 3000 mm



» ± 0,025 mm (K)
» ± 0,2 mm (T)



» ± 1 m/s (K)
» ± 0,4 m/s (T)



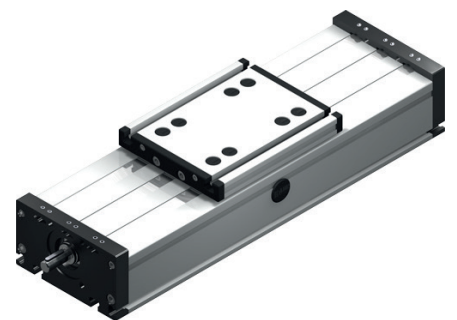
» Low maintenance

DST / DSK range

For Heavy Duty Industrial Applications

Spindle driven Linear Axis with a rectangular, Aluminium profile.

- » Twin integrated rail guides ensure this range is suitable for applications handling exceptionally heavy loads
- » The carriage is driven by means of a rotating spindle with leading nut
- » The leading-nut receiver can be used to adjust the symmetry of the carriages where two linear units are used in parallel or where twin carriages are mounted
- » The openings of the guide body are sealed with stainless steel cover bands providing protection against splash water and dust ingress (cover bands are optional)



Spindle Drive



Twin Rail Guides



» 120 – 160 – 200 mm



» 8000 N



» 3000 mm



» ± 0,025 mm (K)
» ± 0,2 mm (T)



» ± 1 m/s (K)
» ± 0,4 m/s (T)



» Low maintenance

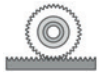
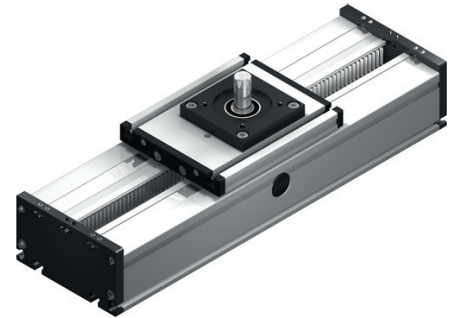
Linear Axis - D Series

DLZA range

For Heavy Duty Industrial Applications

Rack and Pinion driven Linear Axis range with a rectangular Aluminium profile and integrated, hardened steel guide rods.

- » Twin integrated roller guides ensure this range is suited to heavy duty applications with heavy loads
- » The carriage runs on internal linear ball bearings that can be adjusted free of play and is driven along the guide rods by a high precision rack
- » The pinion is equipped with maintenance-free ball bearings
- » The rack and pinion system is suitable for highly dynamic servo operation and ideal for lifting applications
- » Multiple units can be assembled in series to achieve extended strokes



Rack and Pinion Drive



Double Roller - Double Guided



» 160 – 200 mm



» 3800 N



» Up to 6m (standard)



» ± 0,1 mm



» 5m/s



» Low maintenance

DSZA range

For Heavy Duty Industrial Applications

Rack and Pinion driven Linear Axis range with a rectangular Aluminium profile and integrated, hardened steel guide rods.

- » Twin integrated rail guides ensure this range is suited to heavy duty applications with heavy loads
- » The carriage is driven by a pinion on a high precision rack
- » The pinion is equipped with maintenance-free ball bearings
- » The rack and pinion system is suitable for highly dynamic servo operation and ideal for lifting applications
- » Multiple units can be assembled in series to achieve extended strokes



Rack and Pinion Drive



Twin Rail Guides



» 160 – 200 mm



» 3800 N



» Up to 6m (standard)



» ± 0,1 mm



» 5m/s



» Low maintenance

Linear Axis - D Series

Additional ranges

Linear Axis with Tooth Belt Drive



DLSZ



- » Belt drive
- » Omega system
- » Horizontal installation position
- » Off-center loads

DLVZ



- » Belt drive
- » Independent installation position
- » Special drive version
- » Space saving

DLZPVI



- » Belt drive
- » Planetary gearbox
- » Available with angular planetary gearbox
- » Cover profile

DLZS



- » Belt drive
- » Omega system
- » Independent installation position
- » Lifting system

DLZS-P



- » Belt drive
- » Omega system
- » Independent installation position
- » Lifting system
- » Cover profile

DLZZ



- » Belt drive
- » With two separately driven carriages
- » Independent carriages
- » Horizontal installation position

DSSZ



- » Belt drive
- » Omega system
- » Horizontal installation position
- » Off-center loads

DSZPVI



- » Belt drive
- » Optional with two driven carriages
- » Cover profile

DSZS



- » Belt drive
- » Independent installation position
- » Omega system
- » Lifting system

DSZS-P



- » Belt drive
- » Omega system
- » Independent installation position
- » Lifting system
- » Cover profile

DSZZ

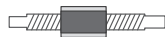


- » Belt drive
- » With two separately driven carriages
- » Independent carriages
- » Horizontal installation position

Linear Axis - D Series

Additional ranges

Linear Axis with Spindle Drive



DLT-P / DLK-P



- » Spindle drive
- » Independent installation position
- » Precision
- » Cover profile

DST-P / DSK-P



- » Spindle drives
- » Precision
- » Independent installation position
- » Universal system
- » Cover profile

Linear Axis with Linear Motor Drive



DLM



- » Linear motor drive
- » Roller guide
- » High dynamics
- » High repeat accuracy
- » Long traverse path
- » Independent carriages

DSM



- » Linear motor drive
- » Rail guide
- » High dynamics
- » High repeat accuracy
- » Long traverse path
- » Independent carriages

DSM-P



- » Linear motor drive
- » Rail guide
- » High dynamics
- » High repeat accuracy
- » Long traverse path
- » Clean room

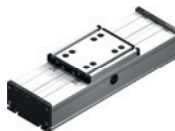
Linear Axis without Drive

DLR



- » Combination unit for use with DL multi-axis systems

DSR



- » Combination unit for use with DS multi-axis systems

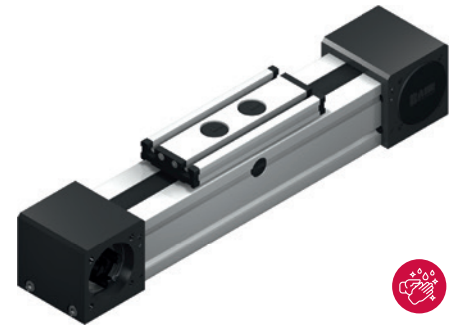
Linear Axis - Q Series

QLZ range

For High Spec Industrial Applications

Tooth belt driven Linear Axis range with a square, Aluminium profile and integrated hardened Steel guide rods.

- » The carriage is driven by a timing belt and runs on an integrated roller guide
- » Each standard pulley includes one coupling claw on one side
- » Belt tension can be readjusted by a simple screw adjustment device in the carriage. This can also be used for symmetrical adjustment of two or more linear units running parallel.
- » This linear unit is suitable for application in clean rooms of clean-room classification 1.000 (corresponding to US Fed. Standard 209 E).
- » Certified for use in Clean room applications (ISO-6)



Tooth Belt Drive



Double Roller - Single Guided



» 60 – 80 – 100 mm



» 3800 N



» Up to 6m (standard)



» ± 0,1 mm



» 7 m/s



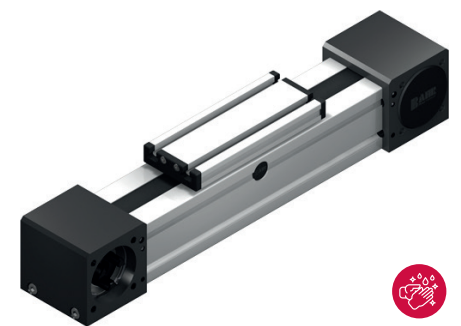
» Low maintenance

QSZ range

For High Spec Industrial Applications

Toothbelt driven Linear Axis range with a square, Aluminium profile.

- » The carriage is moved by a belt drive and runs on an integrated ball rail
- » Each standard pulley includes one coupling claw on one side
- » Belt tension can be readjusted by a simple screw adjustment device in the carriage. This can also be used for symmetrical adjustment of two or more linear units running parallel.
- » Certified for use in Clean room applications (ISO-1)



Tooth Belt Drive



Rail Guide



» 60 – 80 – 100 -125 mm



» 5750 N



» Up to 6m (standard)



» ± 0,1 mm



» 5 m/s



» Low maintenance

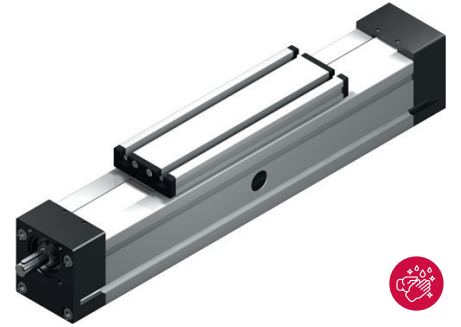
Linear Axis - Q Series

QST / QSK range

For High Spec Industrial Applications

Spindle driven Linear Axis range with a square, Aluminium profile.

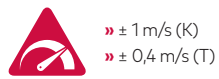
- » The carriage is driven by a rotating spindle with leading nut on an integrated ball rail
- » High positioning accuracy and repeatability
- » Can be used as a vertical axis in a gantry system for applications with restricted installation space
- » Certified for use in Clean room applications (ISO-3)



Spindle Drive



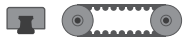
Rail Guide



Linear Axis - Q Series

Additional ranges

Linear Axis with Tooth Belt Drive



QSSZ



- » Belt drive
- » Omega system
- » Clean room



QSZT



- » Belt drive
- » Horizontal telescopic system
- » High rigidity

Linear Axis without Drive

QLR



- » Combination unit for use with QL multi-axis systems

QSR



- » Combination unit for use with QS multi-axis systems

QSRZ



- » Combination unit for use with QS belt multi-axis systems

QSSR



- » Combination unit for use with QS multi-axis systems

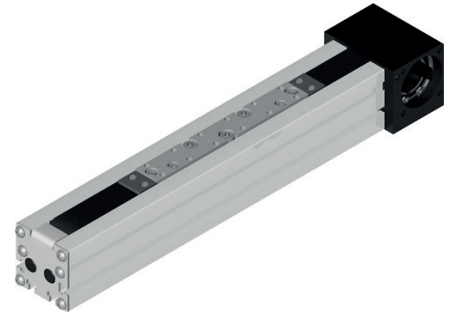
Linear Axis - L Series

LLZ range

For Light Duty Industrial Applications

Tooth belt driven Linear Axis range with a square, Aluminium profile.

- » The carriage is moved by means of an internal rotating tooth belt on an integrated roller guide
- » The carriage runs on 5 roller guides which can be adjusted and serviced
- » The pulley block contains coupling claws on both sides (standard version)
- » Re-tensioning device for the tooth belt integrated into end cap
- » Independent installation position



Tooth Belt Drive



Double Roller - Single Guided



» 40 - 60 - 80 - 100 mm



» 3800 N



» Up to 6m (standard)



» ± 0,1 mm



» 10 m/s



» Low maintenance

LSZ range

For Light Duty Industrial Applications

Tooth belt driven Linear Axis range with a square, Aluminium profile.

- » The carriage is moved by means of an internal rotating tooth belt on an integrated rail guide
- » Includes timing belt deflection unit with integrated coupling claws integrated on two sides
- » Re-tensioning device for the tooth belt integrated into end cap
- » Independent installation position
- » Multiple units can be assembled in series to achieve extended strokes
- » Certified for use in Clean room applications (ISO-1)



Tooth Belt Drive



Rail Guide



» 60 - 80 - 100 mm



» 3800 N



» Up to 6m (standard)



» ± 0,1 mm



» 5 m/s



» Low maintenance

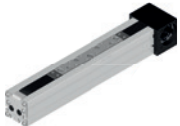
Linear Axis - L Series

Additional ranges

Linear Axis with Tooth Belt Drive



LLN



- » Belt drive
- » Low operating volume
- » Independent installation position
- » Nubbed belt
- » Low-vibration run

LLZS



- » Belt drive
- » Independent installation position
- » Omega system
- » Variable drive block

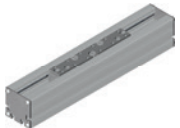
LSN



- » Nubbed belt drive
- » Low operating volume
- » Independent installation position
- » Low-vibration run
- » For 3d printing applications

Linear Axis without Drive

LLR



- » Combination unit for use with LL multi-axis systems

LSR



- » Combination unit for use with LS multi-axis systems

Multi Axis - Twin Axis

ELZI range

Standard Multi Axis Systems

Tooth belt driven X/Z gantry consisting of a double guide in the horizontal X level and vertical Z axis.

- » The unit is driven by a rotating belt, which remains connected through various deflection points. The belt is fixed and tensioned at the load end
- » The movement is realised by two motors. The coordinate lies diagonal to the deflection points of the X axes and the Z axis
- » Suited for pick and place applications requiring high acceleration



Tooth Belt Drive



Double Roller - Single Guided



» 30 - 40 - 60 mm



» 1800 N



» X-Axis: 2000 mm
» Z-Axis: 1000mm



» ± 0,1 mm



» 5 m/s



» Low maintenance

ELZU range

Standard Multi Axis Systems

Tooth belt driven surface portal, consisting of 2 Y-axes and 1 reinforced X-axis.

- » Driven by one rotating belt, which remains connected through various deflection points
- » Positioning is achieved by two motors with coordinates diagonal to the deflection points of the Y-axis
- » Can handle higher torques and loads due to the reinforced rectangular profile
- » Suited to applications requiring high accelerations



Tooth Belt Drive



Double Roller - Single Guided



» 30 - 40 - 60 - 80 - 100 mm



» 3800 N



» X-Axis: 3000 mm
» Y-Axis: 3000mm



» ± 0,1 mm



» 8 m/s



» Low maintenance

Multi Axis - Twin Axis

Additional ranges

Linear Axis with Tooth Belt Drive



ELZI-W



- » X/z - portal - reinforced version
- » Belt drive
- » Compact design
- » Gripper adaptation
- » High speed

ELZU-W



- » Surface portal
- » Strengthened construction

DSZU



- » Belt drive
- » Rail guide
- » Surface portal
- » Stable design

DLZU



- » Belt drive
- » Roller guide
- » Surface portal
- » Stable design

Endless Combination Possibilities

Complex multi axis systems are essential in today's industrial world, and they play an increasingly significant role in machine construction. To ensure we meet our customers' exact specifications, our experienced technical team are on hand to provide comprehensive needs assessment, advice and technical support from design through to delivery.

Extensive product portfolio with more than 200 structural profiles, drive and guide systems and sophisticated accessories all enable endless configuration possibilities for single and multi axis systems.

- » Comprehensive requirement assessment and advice
- » Fast quote: 48 hours with CAD models
- » Standard project fulfilment target: 4 to 6 weeks
- » Unlimited configuration
- » On-site training and support
- » Continuous customer service





Find out more
norgren.com/products/electric-motion

Configurator and Technical Support

The Norgren Electric Motion range is built to meet industry's most demanding standards. To ensure you make the correct decision, our dedicated technical team are available to help you specify the correct product for your application and provide full support throughout purchase and delivery.

Application Configurator

Our intuitive, easy to use online configuration tool gives you the flexibility to specify the correct actuator for your requirements. You are able to configure using application attributes such as distance, load and time.

CAD Configurator

If you know the product you need, then our CAD Configurator allows you to configure using product attributes, add mountings and accessories and download your configuration in your native CAD format.

We support 60+ native CAD formats including AutoCAD, SolidWorks, Pro/Engineer, NX and Catia.

We are committed to offering our customers a complete service - not only off the shelf standard products, but also tailored custom solutions, panels and complete systems, designed and built according to your exact specifications.

Norgren operates four global centres of technical excellence and a sales and service network in 50 countries, as well as manufacturing capability in Brazil, China, Czech Republic, Germany, India, Mexico, UK and the USA.

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Incorporating

