

EWELLIX Product Brochure

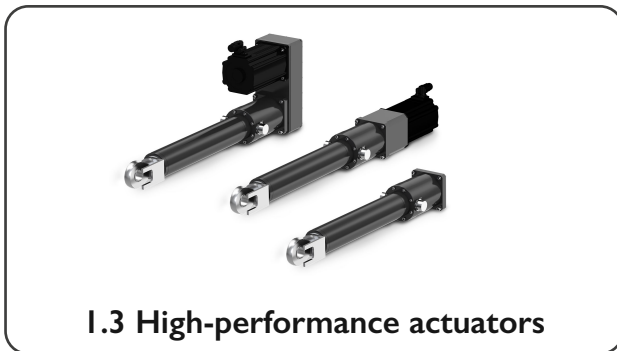
V2023MAR



1.1 Lifting columns



1.2 Linear Actuators



1.3 High-performance actuators



1.4 Roller screws

Ewellix is the leading global manufacturer and supplier of linear motion solutions, which incorporate state-of-the-art designs, components and digital technology. They design, manufacture, and customise linear motion and linear actuators, including smart actuators, linear guides and ball and roller screws for a variety of industrial applications.

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1.1 Lifting columns

Lifting columns also known as telescopic pillars are a smart solution to implement a lifting function in industrial equipment. They are quiet, robust and powerful, and have an attractive design and satisfy the most demanding requirements.

1.1.1 THG



Selection Parameters

Parameters	Min	Max
Push Load	-	2000 N
Stroke	100 mm	700 mm
Linear speed no load	-	15 mm/s
Duty cycle	-	10%
Dynamic offset load	-	1000 Nm

Industries it caters to

Medical

Product application

Imaging Equipment

Infant incubator

Radiant warmer

The slim and compact columns of the THG series can lift medium loads up to 2,000 N and are designed for off-center loads. Thanks to its DC motor with optional position feedback, this solution saves a lot of space and is available as a complete system with control unit, operational switching and resources for medical equipment or other applications.

1.1.2 TCL



Selection Parameters

Parameters	Min	Max
Push Load	-	4000 N
Pull load	-	4000 N
Stroke	100 mm	700 mm
Linear speed no load	-	11 mm/s
Duty cycle	-	10%
Dynamic offset load	-	2100 Nm

Industries it caters to

Medical

Product application

Cardio Equipment

Physiotherapy Devices

The TLC series is a compact, fast and powerful series of lifting columns with AC motors for compression and tension loads up to 4,000 N. They are suitable for medical, industrial and workspace applications and can lift off-center loads without bending due to their rigid aluminum profiles and precise sliding cushions. Its unique and efficient gear technology offers high compression power and low noise performance.

1.1 Lifting columns (continued)

1.1.3 TLG



Selection Parameters

Parameters	Min	Max
Push load	-	4000 N
Stroke	100 mm	700 mm
Linear speed no load	-	15 mm/s
Duty cycle	-	10%
Dynamic offset load	-	2800 Nm

Industries it caters to

Medical

Product application

Treatment Chairs

Cardio Equipment

The TLG series offers compact, fast and powerful lifting columns with DC motor for pressure load of up to 4,000 N. They are suitable for medical, industrial and workplace applications and can lift off-center loads without bending due to their rigid aluminum profiles and precision sliding pads. Unique and efficient gear technology allows for high compression load and smooth operation.

1.1.4 TLT



Selection Parameters

Parameters	Min	Max
Push load	-	4000 N
Stroke	300 mm	700 mm
Linear speed no load	-	25 mm/s
Duty cycle	-	10%
Dynamic offset load	-	1000 Nm

Industries it caters to

Medical

Automation & Robotics

Material Handling

Product application

Pallet Lifting

Cobot Transfer

Surgical Table

Physiotherapy devices

Mammography

The TLT series offers very compact, fast and powerful lifting columns with two DC motors for pressure load of up to 4,000 N. Its very small size ensures a good balance between reversed length and maximum stroke. They are ideal for medical, industrial and workplace applications and can lift off-center loads in the middle without bending due to their solid aluminum profiles and precise sliding pads. Unique and efficient gear technology allows for high compression load capacity and smooth operation.

1.2 Linear Actuators

Electric linear actuators create stable, accurate back and forth movement. These devices have an endless range of applications. If the process involves pushing, pulling, lifting or sliding, a linear actuator can be a key part of the solution.

1.2.1 CAHB SERIES LINEAR ACTUATORS



Selection Parameters

Parameters	Min	Max
Push load	-	10000 N
Pull load	-	10000 N
Max stroke	50 mm	700 mm
Speed Full load	25.5 mm	50 mm
Duty cycle	20 mm	25 mm

Industries it caters to

Food packaging

Agriculture machinery

Product application

Mobile C arm / X arm

AGV (Automated Guided Vehicles)

Harvester Combined Fertilizer Spreader

Seeding Equipment

Tractor

Ewellix Electromechanical CAHB Linear actuators are engineered in severe environments at temperatures from -40 to 85 degree Celsius with a maximum duty cycle of 25% & consist of robust metal gears with corrosion-resistant housing. CAHB series with & families of linear actuator, virtually maintenance-free, self-locking up to 2 times the rated load up to IP69K/66M, covers low, medium & high loads for mobile application, Additional design options are available like limit switches, positioning feedback & manual override.

1.2.2 CAT, CAR & CAP SERIES LINEAR ACTUATORS



Selection Parameters

Parameters	Min	Max
Push load	-	6000 N
Pull load	-	6000 N
Max stroke	-	700 mm
Speed Full load	-	52 N
Max speed No Load	10 N	193 N
Duty cycle	15 %	40 %

Industries it caters to

Automation

Medical

Mobile Machinery

Product application

Surgical Table

AGV (Automated Guided Vehicles)

Fertilizer Spreader

The modular CAT/CAR/CAP concept simplifies the replacement of critical components such as motors, gearboxes, spindles, fasteners, etc. Custom linear actuators can be easily and cost-effectively assembled from standard components. The CAT series is flexible and suitable for countless applications.

1.2 Linear Actuators (continued)

1.1.3 CAMT



Selection Parameters

Parameters	Min	Max
Push load	-	6000 N
Pull load	-	6000 N
Max stroke	50 mm	250 mm
Speed no load	-	6.5 mm/s
Duty cycle	-	10%

Industries it caters to

Medical

Product application

Surgical Table

Procedure Chair

CAMT actuator with unique design assists with the most demanding parts of surgical tables or chairs. CAMT actuator keeps the movement smooth through the whole process of operation or imaging, also when the direction changes. This gives a much improved patient experience. These actuators are maintenance free & no oil leakage.

1.1.4 CAWD SERIES LINEAR ACTUATORS



Selection Parameters

Parameters	Min	Max
Push load	-	500 N
Pull load	-	500 N
Max stroke	-	430 mm
Speed no load	12 mm/s	16 mm/s
Duty cycle	-	10%

Industries it caters to

Automation

Medical

Mobile Machinery

Product application

Surgical Robotics

Mobile C arm / X arm

AGV (Automated Guided Vehicles)

Surgical Table

Ewellix electromechanical CAWD actuators are engineered to operate in severe environmental conditions at temperatures from -40 to +85 °C even with ice and feature robust metal gears encapsulated in a corrosion-resistant housing offering IP69K/67 protection rating. The CAWD series linear actuators are available in 2 versions, for manual operation by winch or for an electrical operation controlled by a switch. By winch or for an electrical operation controlled by a switch, their stroke length could be customized up to 430 mm and they feature a trunnion mount with multiple position which simplifies the standardization. They are virtually maintenance-free and self-locking up to 2500 N.

1.3 High-performance actuators

High performance electromechanical linear Actuator range from high load capacities and fast operating speeds to systems designed for the quietest possible operation and aesthetic elegance. These products have very high positioning accuracy and controllability, enabling precise motion control with loads from few kilos up to 50 tons.

1.3.1 CASM-25



Selection Parameters

Parameters	Min	Max
Max stroke	-	50 mm
Linear speed no load	-	125 mm/s
Dynamic axial force	-	0.3 kN
Dynamic load capacity	-	2.042 kN
Duty cycle	-	100%

Industries it caters to

Automation

Medical

Mobile Machinery

Product application

Blow Moulding

Servo Press

Dispensing

The CASM-25 actuator is a customized-design solution for small automation applications and electronic production industry. This miniature actuator can deliver high static as well dynamic force with precise movement and long working life. The Ewellix solution is based on the high accuracy of the ballscrew SD8 \times 2,5, with a full aluminum body, which leads to a very compact package with a high power density.

1.3.2 CASM-32/40/63



Selection Parameters

Parameters	Min	Max
Dynamic axial force	0.7 kN	5.4 kN
Linear speed	500 mm/s	1067 mm/s
Dynamic load capacity	2.8 kN	21 kN
Stroke	400 mm	800 mm
Duty cycle	100%	100%

Industries it caters to

Automation

Mobile Machinery

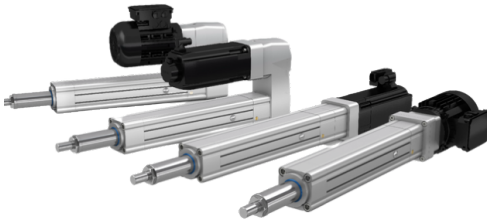
Product Application

AGV (Automated Guided Vehicles)

CASM electric cylinders are ideally suited to perform fast and powerful linear movements. Its modular concept enables easy connection to any preferred motor and control systems, reducing design and programming costs considerably. Thanks to high grade materials and a sealing system with an IP54S level, CASM electric cylinders can also be used long term even under adverse conditions. The low backlash design provides positioning precision of up to $\pm 0,01$ mm. It Complies with ISO-15552.

1.3 High-performance actuators (continued)

1.3.3 CASM-100



Selection Parameters

Parameters	Min	Max
Max stroke	-	2000 mm
Linear speed no load	-	890 mm/s
Dynamic axial force	-	82 kN
Dynamic load capacity	-	106 kN
Duty cycle	-	100%

Industries it caters to

Automation

Medical

Mobile Machinery

Product application

Blow Moulding

Servo Press

Filling Machine

Excavator

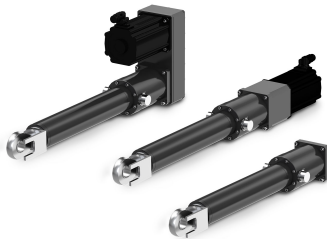
Scissor Lifts

Fork Lifts

Pallet Truck

CASM-100 is Suitable for a wide range of applications with different power requirements and operating life. It has High level of flexibility in the mounting cylinders, in place of hydraulic ones. CASM-100 have Standard range, up to 2 metres.

1.3.4 SRSA/SVSA



Selection Parameters

Parameters	Min	Max
Dynamic axial force	74.6 kN	500 kN
Linear speed	10 mm/s	1111 mm/s
Dynamic load capacity	174 kN	572 kN
Stroke	900 mm	1500 mm
Duty cycle	100%	100%

Industries it caters to

Automation

Medical

Mobile Machinery

Product application

Dispensing

Blow Moulding

Servo Press

Hexapods

Press Forming

Embossing

CASM electric cylinders are ideally suited to perform fast and powerful linear movements. Its modular concept enables easy connection to any preferred motor and control systems, reducing design and programming costs considerably. Thanks to high grade materials and a sealing system with an IP54S level, CASM electric cylinders can also be used long term even under adverse conditions. The low backlash design provides positioning precision of up to $\pm 0,01$ mm. It Complies with ISO-15552.

1.4 Roller screws

Roller screws are a shining example of the departure from conventional linear solutions and the pinnacle of a new generation of innovative and powerful electromechanical drive systems. Due to their high precision and rigidity, they are the ideal choice for heavy loads, long duty cycles, high speeds, high linear speeds, high accelerations and harsh operating conditions.

1.4.1 PLANETARY ROLLER SCREWS



Selection Parameters

Parameters	Min	Max
Nominal Diameter	8 mm	240 mm
Lead	2 mm	50 mm
Basic dynamic load capacity	-	3994 kN
Basic static load capacity	-	23387 kN

Industries it caters to

Automation

Medical

Mobile Machinery

Product application

Spot Welding

Riveting

Dispensing

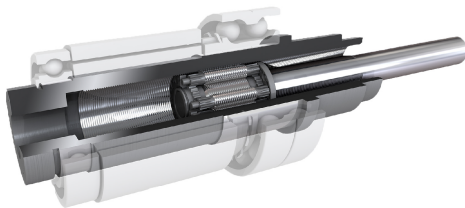
Servo Press

Hexapods

Glass forming

The planetary roller screw drives without roller recirculation ensuring ultimate drive performance. They are extremely robust and load-bearing, offer maximum performance in terms of speed and acceleration and are extremely durable and reliable. These rollers are highly reliable, less noisy & have high rotational speed.

1.4.2 COMPACT INVERTED ROLLER SCREWS



Selection Parameters

Parameters	Min	Max
Nominal diameter	18 mm	48 mm
Lead	2.4 mm	6 mm
Basic dynamic load capacity	-	259kN
Basic static load capacity	-	559 kN

Industries it caters to

Automation

Medical

Mobile Machinery

Product application

Spot Welding

Riveting

Press Forming

The compact inverted roller screws from Ewellix are a unique variety of the planetary roller screws. Their design provides a powerful electromechanical drive when compactness and high load capacity are required. They offer an excellent combination of high strength, low pitch and high dynamic performance, performance without any compromise. These screws are compact & light weight with exceptional sealing performance.

1.4 Roller screws (continued)

1.4.3 RECIRCULATING ROLLER SCREWS



Selection Parameters

Parameters	Min	Max
Nominal Diameter	8 mm	125 mm
Lead	1 mm	5 mm
Basic dynamic load capacity	-	756 kN
Basic static load capacity	-	2270 kN

Industries it caters to

Automation

Medical

Mobile Machinery

Product Application

Oncology Table

Spot Welding

Riveting

Roller screws with roller recirculation offer an ultra-precise drive solution with perfect combination of high load capacity, the smallest possible pitch for fine resolution, high positioning accuracy and axial rigidity. They have high load capacities & rigidity & Extremely accurate positioning with excellent repeatability.