

EWELLIX

A Schaeffler Company

Solutions for commercial and municipal vehicles



The heritage of innovation

Ewellix is a global innovator and manufacturer of linear motion and actuation solutions. Our state-of-the-art linear solutions are designed to increase machine performance, maximise uptime, reduce maintenance, improve safety and save energy. We engineer solutions for assembly automation, medical equipment, mobile machinery, distribution and a wide range of other industrial applications.

Technology leadership

We earned our reputation through decades of engineering excellence. Our journey began over 50 years ago as part of the SKF Group, a leading global technology provider. Our history provided us with the expertise to continuously develop new technologies and use them to create cutting edge products that offer our customers a competitive advantage.

In 2019, we became independent and changed our name to Ewellix. We are proud of our heritage. This gives us a unique foundation on which to build an agile business with engineering excellence and innovation as our core strengths.

Global presence and local support

With our global presence, we are uniquely positioned to deliver standard components and custom-engineered solutions, with full technical and applications support around the world. Our skilled engineers provide total life-cycle support, helping to optimise the design, operation and maintenance of equipment thus improving productivity and reliability while reducing costs. At Ewellix, we don't just provide products; we engineer integrated solutions that help customers realise their ambitions.

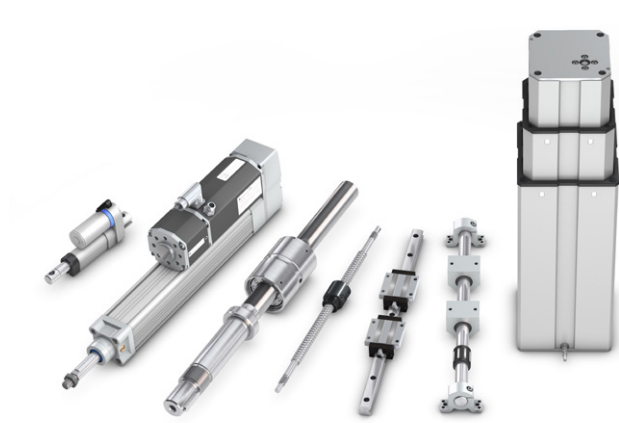
Schaeffler Group – We pioneer motion

Ewellix is since 2023 owned by the Schaeffler Group.

As a leading global supplier to the automotive and industrial sectors, the Schaeffler Group has been driving forward groundbreaking inventions and developments in the fields of motion and mobility for over 75 years.

With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, Industry 4.0, digitalization, and renewable energies, the company is a reliable partner for making motion and mobility more efficient, intelligent, and sustainable.

Schaeffler manufactures high-precision components and systems for powertrain and chassis applications as well as rolling and plain bearing solutions for a large number of industrial applications.



Supporting the world's trend towards zero-emission fleets

Ewellix has developed powerful electromechanical actuators with extended functionality for demanding applications for commercial and municipal equipment applications.

Zero-emission fleets is the trend in Global market for vehicle manufacturers to evaluate citylife and provide low-pollution vehicles for urban service.

They have released or are developing fully or partially electric-powered equipment, not only for powertrain, but for movement and actuation systems.

Our electromechanical actuators offer a better solution with:

- Lower overhaul and maintenance
- Oil-free
- Higher static performance
- Smooth operation with combined movement
- Lower TCO



From standard range to customised solutions

Ewellix provides a range of actuators, guide systems and controllers to meet all your needs. From high-performing, robust products with minimal play to straightforward configurations needed for less demanding jobs.

Application competence

Building on our more than 30 years of experience and knowledge in mobile applications, Ewellix can support you with technical advice, system setup, and customised designs throughout the entire product development cycle.

Electromechanical actuators benefits

- Accurate positioning with feedback
- High productivity
- High energy efficiency
- Less components
- Oil free solution without maintenance

Refuse truck

Some of the regulations the market faces include legislation on CO2, environmental zones, and urban noise limits. Ewellix provides a wide range of high performance electro-mechanical actuators for demanding environments to support OEMs in their electrification journey. With our solutions, we can power all functions of the truck to remove the hydraulic systems providing no leak, no maintenance and smooth movement with high energy efficiency.

Ewellix solutions

Features

- Oil-free operation with the same performance as a hydraulic system
- High responsiveness, speed and positioning
- Integrated safety feature for lifting
- Parallel motion

Benefits

- Less overhaul and maintenance
- Compactness
- Position feedback
- Stability
- Smooth movement
- Lower TCO



High performance actuator

	EMA-100	EMA-130*
Rated force	up to 82 000 N	150 000 N
Speed	up to 890 mm/s	up to 160 mm/s
Stroke	up to 2 000 mm	up to 2 000 mm
Retracted length	Stroke + 326 mm	Stroke + 326 mm
Static force	82 000 N	300 000 N

*More data available on request

Street sweeper

Thanks to its innovative, ecological technology of sweeping movements that avoid hydraulic oil leaks, it responds perfectly to the needs of towns and municipalities that want to invest in quality of life for their citizens.

Moreover, positioning speed and accuracy, increase productivity, reducing the time for adjustment to the road surface.

Ewellix solutions

Features

- Oil-free operation with the same performance as a hydraulic system
- High responsiveness, speed and positioning
- Integrated safety feature for lifting
- Integrated sensor

Benefits

- Less overhaul and maintenance
- Compactness
- Position feedback
- Stability
- Smooth movement
- Lower TCO



CAHB-2x

Linear actuator

	CAHB-2x
Rated force	up to 10 000 N
Speed	up to 57 mm/s
Stroke	up to 700 mm
Retracted length	Stroke + 160/235 mm
Static force	20 000 N

Safety road signage equipment

Safety on the road is a must. Remote operation using powered motion reduces the risk of exposure to road workers. The electromechanical actuators from Ewellix provide an easier design controlled by I/O or CAN Bus with diagnostic and position feedback and are tested for use in harsh environments such as road construction sites.

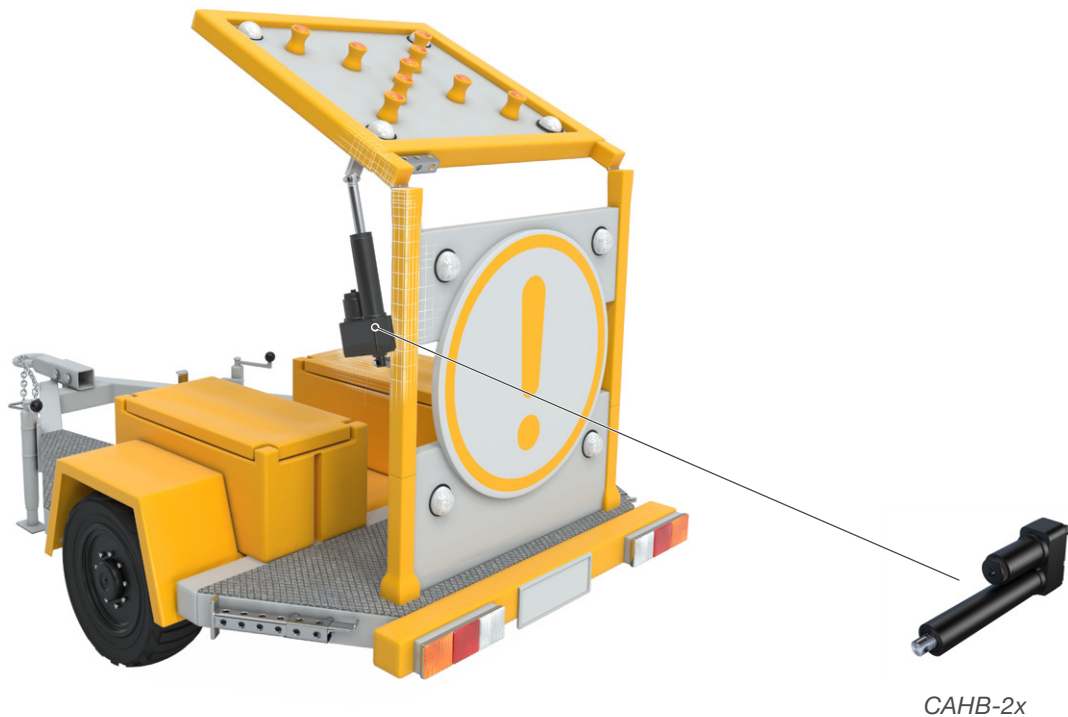
Ewellix solutions

Features

- Oil-free operation with the same performance as a hydraulic system
- High responsiveness, speed and positioning
- Integrated controller
- Integrated controller with BUS communication

Benefits

- Less overhaul and maintenance
- Energy efficient
- Position feedback
- Lower TCO
- Remote control



CAHB-2x

Linears actuators

	CAHB-2x
Rated force	up to 10 000 N
Speed	up to 57 mm/s
Stroke	up to 700 mm
Retracted length	Stroke + 160/235 mm
Static force	20 000 N

Ground support equipment

Passenger steps provide a mobile means to board the aircraft from the ground. Due to different door sill heights, most models have adjustable heights to accommodate various aircraft.

An easy and fast adjustment and floor locking is the main value to allow a simple use in all airport apron situations.

Electromechanical solutions allow positioning precision with high safety in high energy efficient operation without risk of oil leakage.

Ewellix solutions

Features

- Oil-free operation with the same performance as a hydraulic system
- High responsiveness, speed and positioning
- Integrated safety feature for lifting
- Integrated sensor

Benefits

- Less overhaul and maintenance
- Compactness
- Position feedback
- Stability
- Smooth movement
- Lower TCO



Linears actuators and high performance actuator

	CAHB-2x	EMA-100
Rated force	up to 10 000 N	up to 82 000 N
Speed	up to 57 mm/s	up to 890 mm/s
Stroke	up to 700 mm	up to 2 000 mm
Retracted length	Stroke + 160/235 mm	Stroke + 326 mm
Static force	20 000 N	82 000 N

Tail lift delivery truck

Tail lift delivery service is the best alternative to a forklift or a dedicated unloading dock to transfer goods from or in the truck.

Thanks to quick and easy loading and unloading, trucks with such equipment are suitable for urban delivery, with frequent stop and go.

The use of electromechanical solution without the risk of hydraulic oil leakage, silent and regenerative braking and precision positioning is the best solution to more efficient distribution models.

Ewellix solutions

Features

- Oil-free operation with the same performance as a hydraulic system
- High responsiveness, speed and positioning
- Integrated safety feature for lifting

Benefits

- Less overhaul and maintenance
- Compactness
- Stability
- Smooth movement
- Lower TCO
- Parallel motion
- Energy efficiency



EMA-100

High performance actuator

	EMA-100	EMA-130*
Rated force	up to 82 000 N	150 000 N
Speed	up to 890 mm/s	up to 160 mm/s
Stroke	up to 2 000 mm	up to 2 000 mm
Retracted length	Stroke + 326 mm	Stroke + 326 mm
Static force	82 000 N	300 000 N

*More data available on request

Service crane

Some of the regulations the market faces include legislation on CO₂ and greenhouse gas emissions, environmental zones, EU emissions regulations for combustion engines and urban noise limits.

Ewellix provides a wide range of electromechanical actuators for demanding environments to support OEM's in their electrification journey. With our solutions, we can power all truck functions by the battery pack to remove the hydraulic systems providing no leak, no maintenance and smooth movement without engine running.

Ewellix solutions

Features

- Oil-free operation with the same performance as a hydraulic system
- High responsiveness, speed and positioning
- Integrated safety feature for lifting

Benefits

- High efficient power on demand
- Less overhaul and maintenance
- Position feedback
- Stability
- Smooth movement
- Lower TCO



Linears actuators and high performance actuator

	EMA-100	EMA-130*
Rated force	up to 82 000 N	150 000 N
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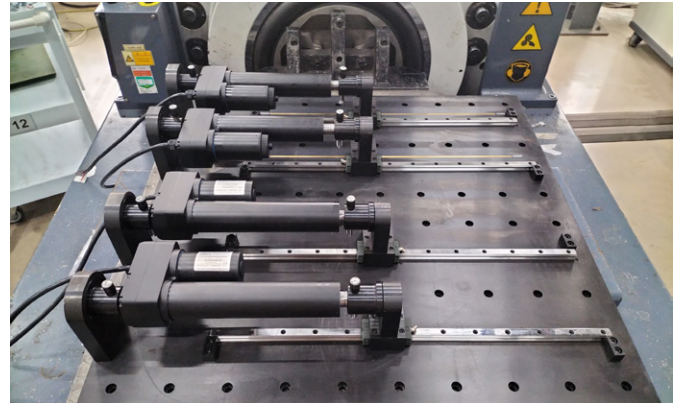
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Tested for your environment

Ewellix's expertise in mechanics and electronics and specific application requirements contribute to developing electromechanical actuators to meet the needs of mobile machinery manufacturers. We verify our products by a comprehensive test plan that covers all regulatory and environmental requirements.

Mechanical tests

The actuators are used on mobile equipment, and we put them on different test benches to validate how they withstand vibration and shock on all three axes.



Vibration test

Climatic tests

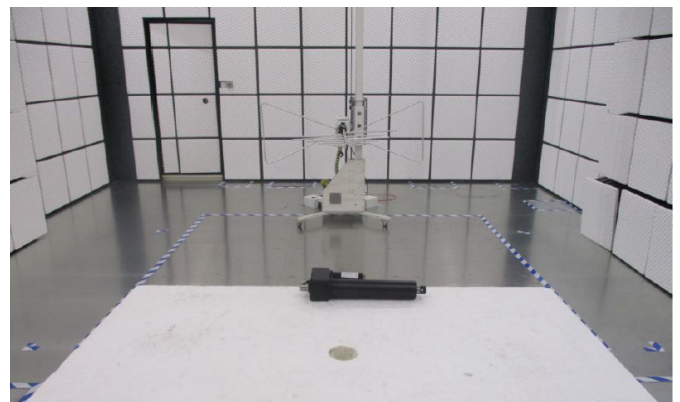
The actuators are tested in a climatic test chamber that reproduces extremely low -40°C and high temperatures $+85^{\circ}\text{C}$, and any possible variations, including humidity and corrosive atmospheres. Doing this ensures that all the functions and performance of the actuators are working as expected.



Low temperature test

Electrical tests

The actuators are tested with different test equipment that reproduces the electrical environment recommended by international standards, such as power supply, immunity to the electrostatic discharges, and electromagnetic compatibility during extreme cases, even during the transient mode typical on a vehicle.



EMC test air immunity or radiation test

Supporting tool

Digital

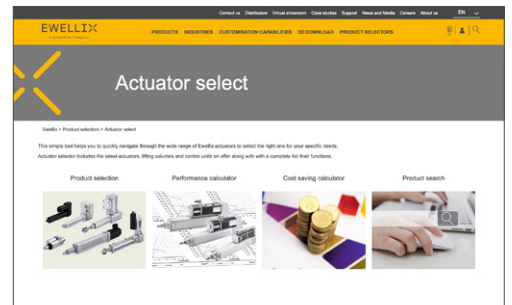
Ewellix has developed a portfolio of tools to support customers in the easy selection and calculation of the right Ewellix product for their application.

Actuators

- Product selection
- Performance calculator
- Cost saving calculator



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Publications

Supporting documents are available for downloading on ewellix.com in each product page under technical data section:

- operating manual
- mounting instruction

Linear actuator CAHB series

[Click to open](#)



High performance actuator EMA-100

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