

EWELLIX

A Schaeffler Company

Solutions for compact construction equipment



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

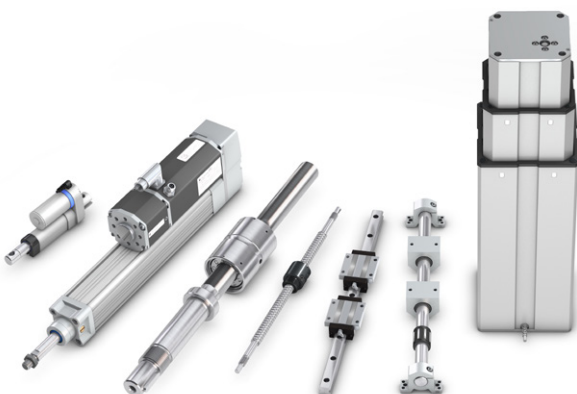
We earned our reputation through decades of engineering excellence. Our journey began over 50 years ago as part of the SKF Group, a leading global technology provider.

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.



More productivity, higher energy efficiency, lower Total Cost of Ownership

Ewellix has developed powerful electromechanical actuators with extended functionality for demanding applications for construction equipment.

Most major equipment manufacturers have released or are developing fully or partially electric-powered construction equipment.

Our electromechanical actuators offer for Battery Electric Vehicles:

- Lower overhaul maintenance
- Oil-free
- Higher static performance
- Smooth operation with combined movement
- Energy recuperation
- 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.

Digital offer

Mobile Machinery



Battery Electric Vehicles



Skid-steer loader

Skid-steer loaders become battery electric to be used indoors or in the city. Electromechanical actuators can be used in the compact loader to lift the arm and tilt the bucket with high energy efficiency and smooth movement. In addition, they offer an oil-free solution for less overhaul and maintenance and a lower total cost of ownership.

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
- Energy efficiency with recuperation
- Compactness
- Position feedback
- Stability
- Smooth movement
- Lower TCO
- Parallel motion



High performance actuator

	EMA-100	EMA-130*
Rated push load	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 load	82 000 N	300 000 N

*More data available on request

Articulated compact dumper

Compact dumpers become battery electric to be used indoors or in the city. Electromechanical actuators can be used in compact dumpers to steer the vehicle and to dump the bucket with high energy efficiency and smooth movement. In addition, they offer an oil-free solution for less overhaul and maintenance and a lower total cost of ownership.

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
- Energy efficiency with recuperation
- Compactness
- Position feedback
- Stability
- Smooth movement
- Lower TCO



High performance actuator

	EMA-100	EMA-130*
Rated push load	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 load	82 000 N	300 000 N

*More data available on request

Mini dumper

Mini dumpers become battery electric to be used indoors or in the city. Electromechanical actuators can be used in mini dumpers to dump the bucket or to lift the loader unit with high energy efficiency and smooth movement. In addition, they offer an oil-free solution for less overhaul and maintenance and a lower total cost of ownership.

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
- Smooth movement
- Lower TCO



Linears actuators

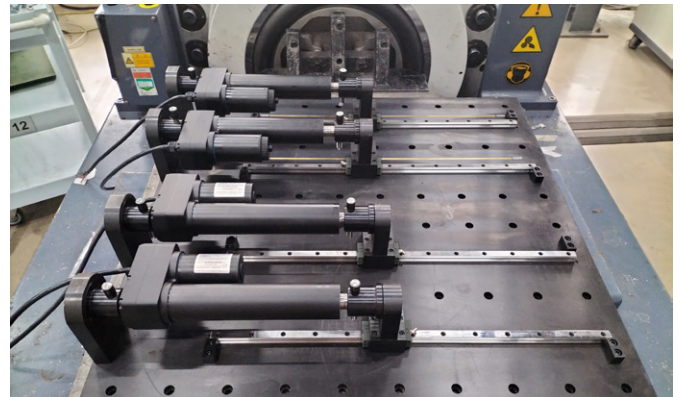
	CAHB-2x	EMA-100
Rated push load	up to 10 000 N	up to 82 000 N
Speed	up to 57 mm/s	up to 890 mm/s
Stroke	up to 700 mm	up to 2 000 mm
Retracted length	Stroke + 160/235 mm	Stroke + 326 mm
Static load	20 000 N	82 000 N

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

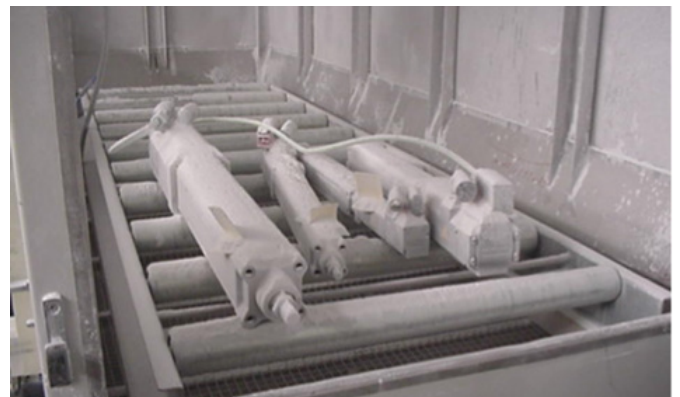
The actuators are used on mobile equipment, and we put them on different test benches to validate how they withstand vibration and shock on all three axes.



Vibration test

Climatic tests

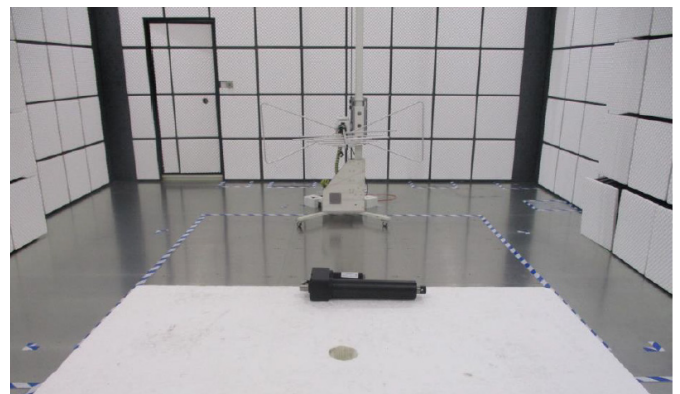
The actuators are tested in a climatic test chamber that reproduces extremely low -40°C and high temperatures $+85^{\circ}\text{C}$, and any possible variations, including humidity and corrosive atmospheres. Doing this ensures that all the functions and performance of the actuators are working as expected.



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



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PUB NUM EL-03015/2-EN -November 2024

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