Linear Motion solutions for compact construction equipment

We pioneer motion

SCHAEFFLER

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

We have 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.

The EWELLIX electromechanical actuators offered by Schaeffler provide these benefits:

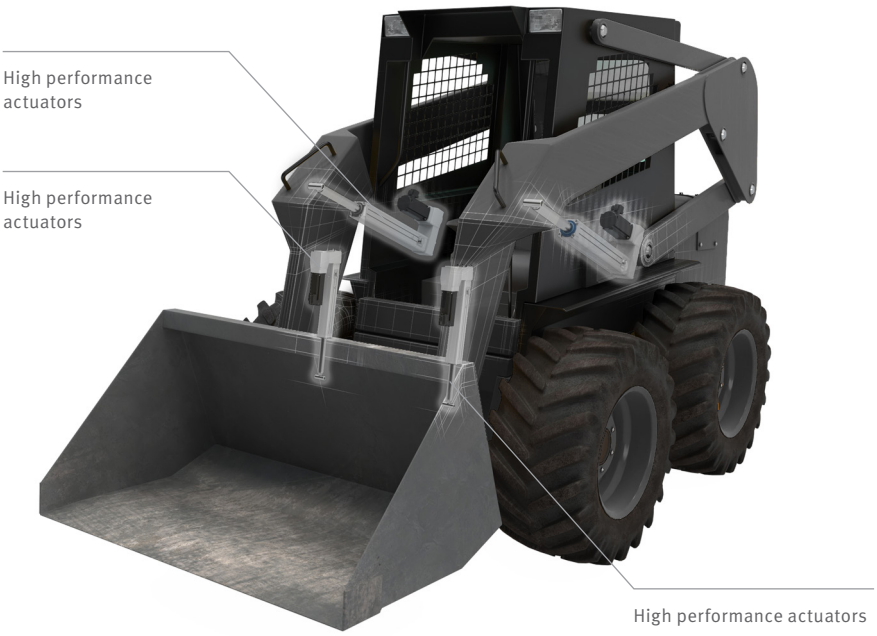
- Lower overhaul maintenance
- Oil-free
- Higher static performance
- Smooth operation with combined movement
- Energy recuperation
- Lower TCO

From standard range to customised solutions
Schaeffler provides a range of EWELLIX 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, Schaeffler can support you with technical advice, system setup, and customised designs throughout the entire product development cycle.

Skid-steer loader

with EWELLIX actuators



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

Skid-steer loaders become battery electric to be used indoors or in the city. EWELLIX electromechanical actuators offered by Schaeffler 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.

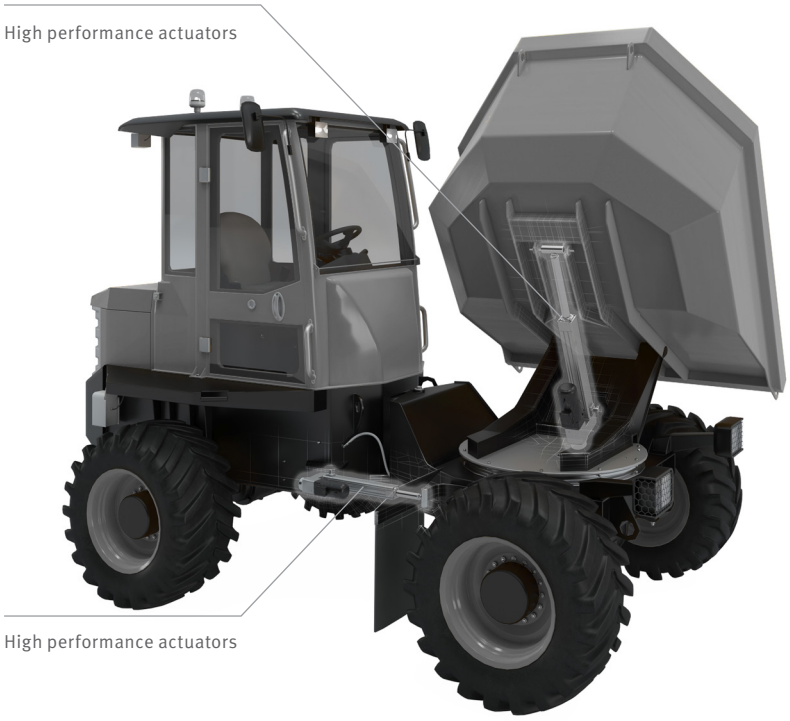
High performance actuators*

EMA-100/EMA-130

* EWELLIX actuators offered by Schaeffler

Articulated compact dumper

with EWELLIX actuators



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

Compact dumpers become battery electric to be used indoors or in the city. EWELLIX electromechanical actuators offered by Schaeffler 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 over-haul and maintenance and a lower total cost of ownership.

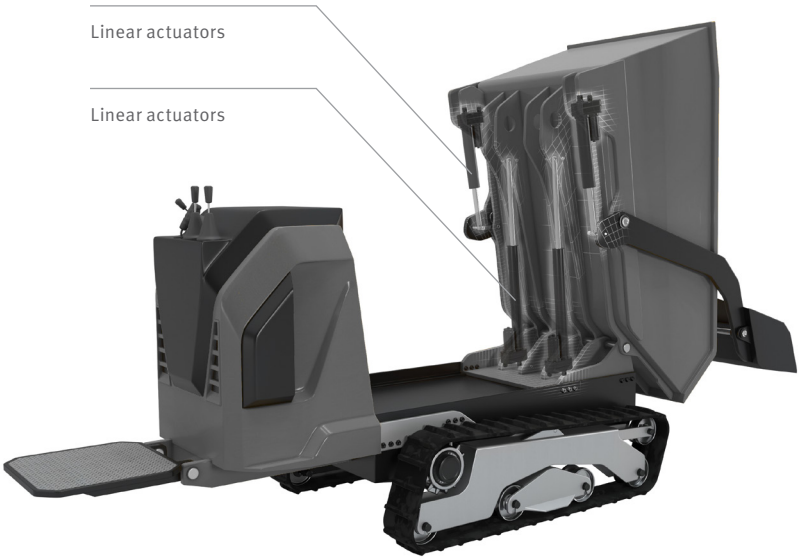
High performance actuators*

EMA-100/EMA-130

* EWELLIX actuators offered by Schaeffler

Mini dumper

with EWELLIX actuators



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

Mini dumpers become battery electric to be used indoors or in the city. EWELLIX electromechanical actuators offered by Schaeffler 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.

High performance actuators* **Linear actuators***

EMA-100

CAHB-2x

* EWELLIX actuators offered by Schaeffler

EWELLIX Products overview

Linear actuators*	CAHB-2x
Rated push load	Up to 10000 N
Speed	Up to 57 mm/s
Stroke	Up to 700 mm
Retracted length	Stroke + 160/235 mm
Static load	20000 N

* EWELLIX actuators offered by Schaeffler
More data available on request

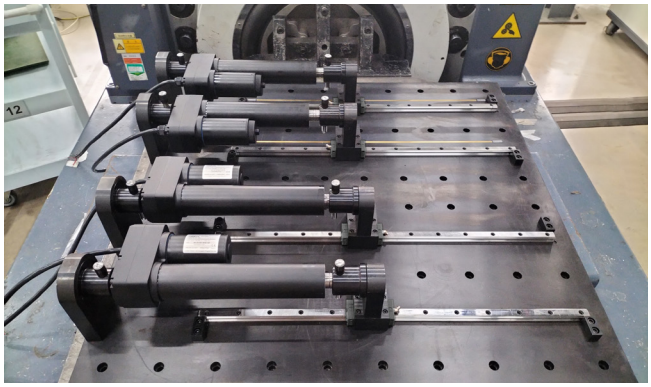
High performance actuators*	EMA-100	EMA-130
Rated push load	Up to 80000 N	150000 N
Speed	Up to 890 mm/s	Up to 160 mm/s
Stroke	Up to 2000 mm	Up to 2000 mm
Retracted length	Stroke + 326 mm	Stroke + 326 mm
Static load	80000 N	300000 N

* EWELLIX actuators offered by Schaeffler
More data available on request

Your development partner

Tested for your environment

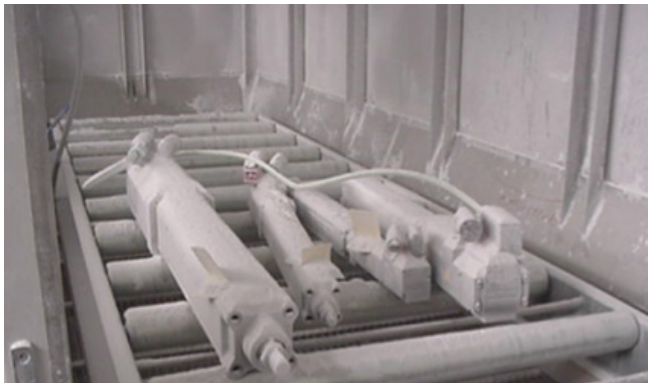
Our expertise in mechanics and electronics and specific application requirements contribute to the development of electromechanical actuators to meet the requirements of mobile machinery manufacturers. We verify our products through a comprehensive test plan that covers all regulatory and environmental requirements.



Vibration test

Mechanical tests

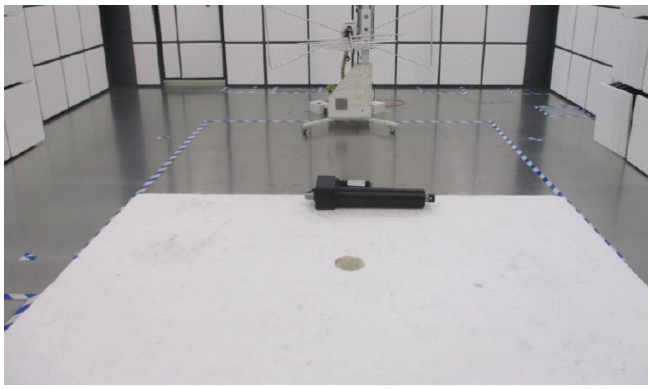
The actuators are used on mobile equipment and we put them on different test benches to validate how they withstand vibration and shock on all three axes.



Low temperature test

Climatic tests

The actuators are tested in a climatic test chamber that reproduces extremely low –40 °C and high temperatures +85 °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.



EMC test air immunity or radiation 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.

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