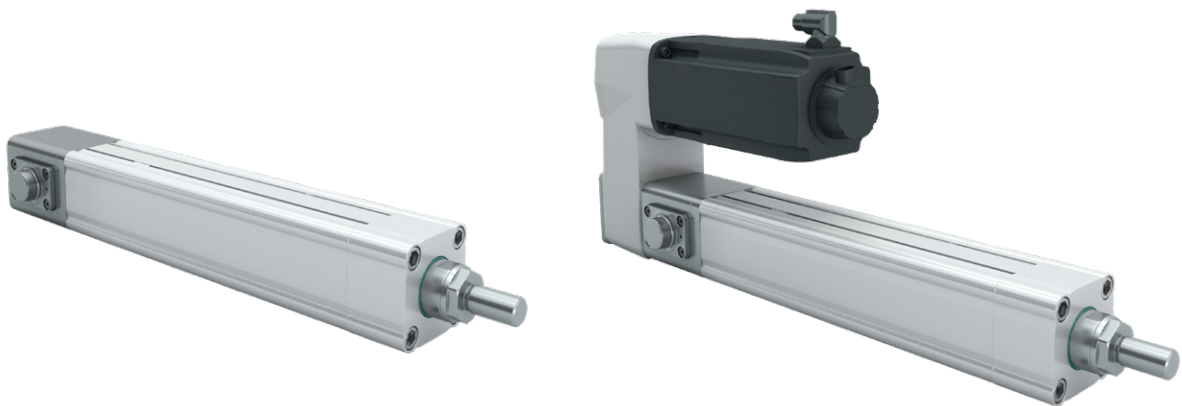


High performance actuator for heavy duty applications

Power density and modularity



Electrical systems in automated machines help to enhance assembly, forming, pressing and testing processes by being robust, flexible and programmable.

In multiple industries and sectors, electrification is already mature. It offers an excellent solution to reduce final energy consumption and has rapidly changed the mechanical design landscape. Performance optimization, easy integration and environmental friendliness are three key factors that lead to savings in total cost of ownership.

Ewellix, with a long-standing tradition of technical expertise, helps customers transition from established manufacturing process technologies to innovative approaches with easy, safe and environmentally friendly linear motion solutions.

We support customers in improving automation equipment with processes that run faster, longer, and safer sustainably.

Ewellix electromechanical actuators are more reliable and energy efficient than the old-style fluid power versions, combining best-in-class roller screw mechanism powered by brushless servomotor and offering great benefits.

Ewellix mechatronic and linear solutions offer:

- Minimal maintenance
- Reduced downtime
- Improved total cost of ownership

Planetary roller screw technology benefits

- Power density
- Robustness and shock load resistance
- Long service life
- Efficiency and energy reduction

Critical drivers for automation processes



Greater productivity

High-performance roller screws guarantee continuous use and improve service life while having minimized maintenance.



Flexibility and programmability

Modular design offers easy integration into automation equipment



Pneumatic free systems

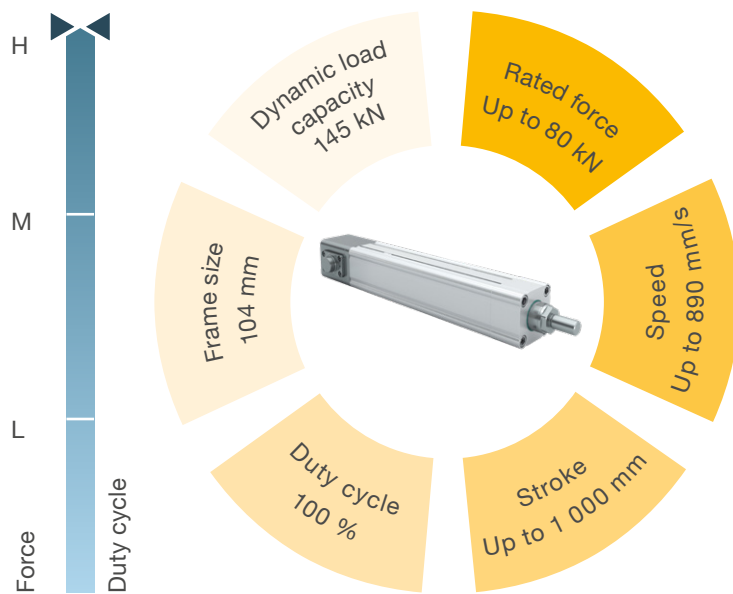
Mechatronic systems are environmentally friendly and offer greater efficiency in energy reduction.



Maximized power density

Compact and robust technology where high force and reliability are essential, leading to millions of cycles.

Ewellix solutions - new EMA-100



Design highlights:

- Bearing housing in steel for stronger load path resistance
- Robust anti rotation with multiple keys for higher torque resistance
- Sealed body for IP54S ingress protection

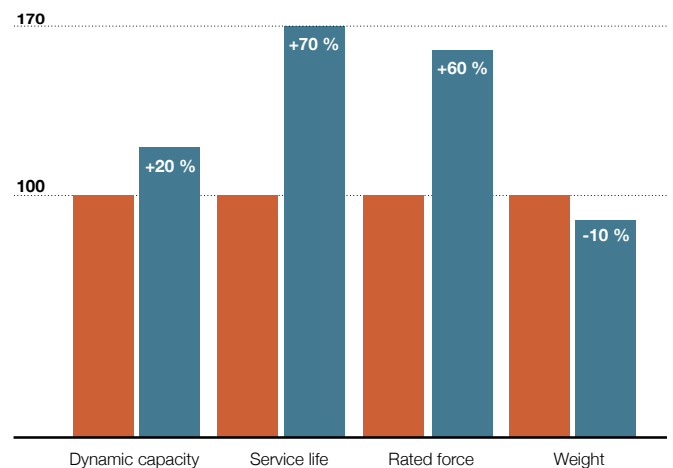
Performance improvements*

+20 % dynamic capacity

+70 % service life

+60 % rated force ¹⁾

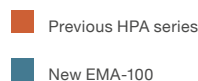
-10 % kg when considering the extra capacity vs. former series ²⁾



* Actuator with Ø 30 roller screw

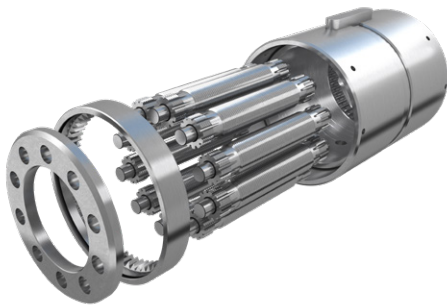
¹⁾ Usable force to apply the theoretical lifetime calculation L_{th}

²⁾ Factor ratio between weight (kg) and dynamic capacity (kN), to evaluate power density.

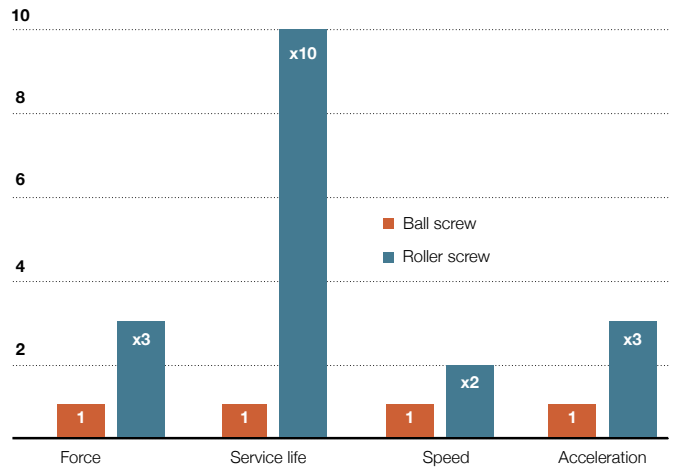


Ewellix core technology for automation processes

Ewellix is a pioneer in the technology of roller screws and offers high quality, high performance and the most comprehensive assortment of roller screws available on the market. In addition, planetary technology helps improve screw performances following market needs in power density.



Comparison of ball screws and roller screws performances on an equivalent screw diameter



Application examples



With EMA-100 new series, Ewellix offers performances improvements and power density for multiple processes, impacting several important application parameters:

- Long service life
- Increased productivity and high duty
- Peak load acceptance
- Easy force and position control
- Force repeatability for constant quality

A perfect fit for applications like:

- Bending
- Crimping
- Riveting
- Welding
- Gluing
- Press fitting
- Clinching
- Stamping
- Thermoforming
- Blow molding
- Testing equipment
- ...

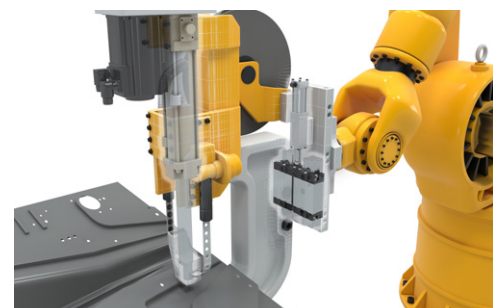
Material forming

There are many different processes used depending on the material. In metal forming, sheets and parts are pressed into the desired shape. In contrast, thermoplastic components are produced by injection molding or blow moldin.



Material joining

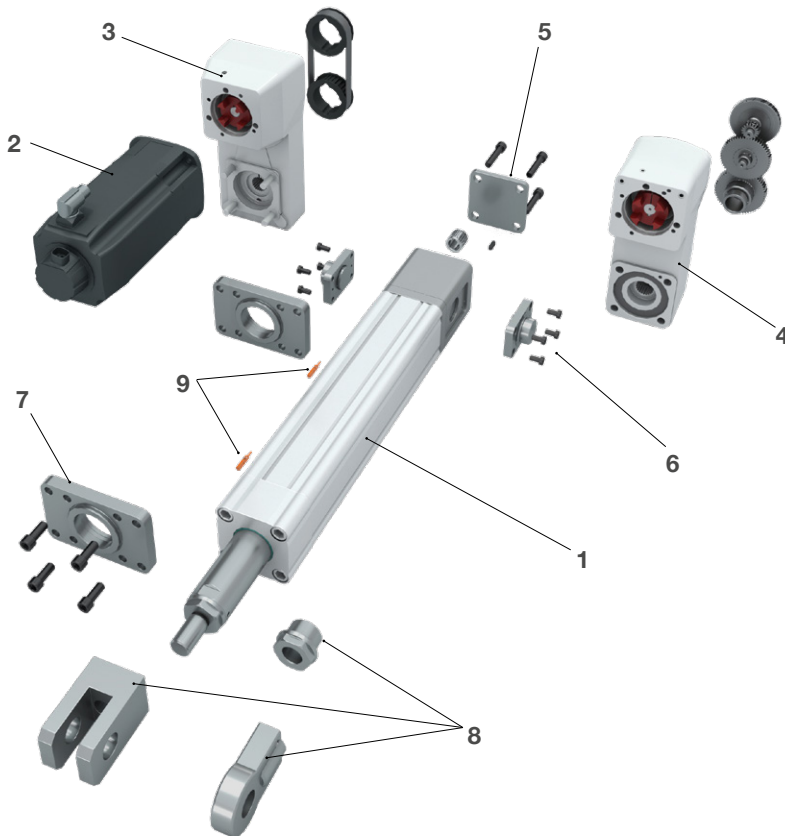
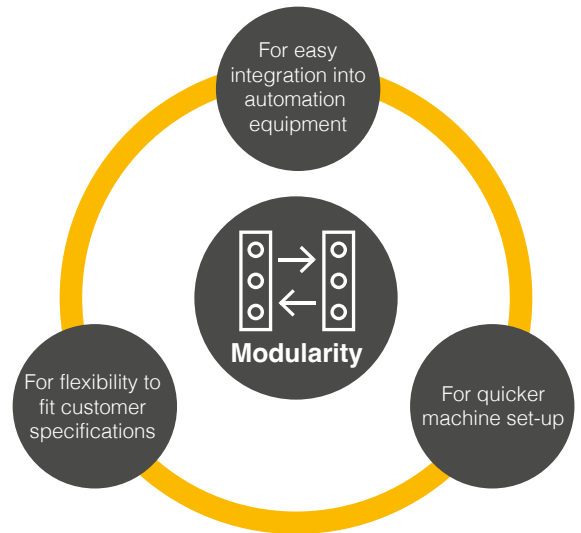
Mechanical joining technologies such as riveting are expected to experience significant developments driven by the electrification of the automotive industry. For instance, self-piercing riveting is very adaptable to join mixed lightweight materials such as high-grade steel or aluminum alloys. Industry demands expect robust, reliable, and cost-effective joints combined with repeatable, fast and easy to apply processes.



Ewellix modularity

The built-in modularity of the new EMA series allows customers to create tailor-made solutions through a vast number of standard components.

Considering the multiple options in body attachments, rod attachments, end shaft (spline or keyway to fit customer standard needs), motor interfaces and gearboxes, several hundreds of combinations are possible to meet most demanding application requirements.



1. Linear unit
2. Motor
3. Belt gearbox
4. Spur gearbox
5. Rear attachment
6. Pivot attachment
7. Front plate attachment
8. End rod attachments
9. Proximity switch



Save the date

The new series of **Ewellix EMA-100** electric actuators will be launched on the market **within 2024**.

Get ready to experience its features.

- Extremely robust design
- Rated continuous force up to 80 kN
- Modular and easy interfaces

ewellix.com

© Ewellix
 All contents of this publication are the property of Ewellix, and may not be reproduced or given to third parties (even extracts) without permission. Although great care has been taken in the production of this catalog, Ewellix does not take any responsibility for damage or other loss resulting from omissions or typographical errors. The photo may differ slightly in appearance from the actual product. Due to continuous improvements being made in our products, the product's appearance and specifications are subject to change without notice.