



## Advancing laboratory automation

Moving technology forward for a range of IVD and clinical applications



## EWELLIX

# Heritage of innovation for technology leadership

Ewellix is a global innovator and manufacturer of linear motion and actuation solutions. Today, our state-of-the-art linear solutions are designed to increase machine performance, maximise uptime, reduce maintenance, improve safety and save energy.

#### **Technology leadership**

Our journey began **over 50 years** ago as part of the SKF Group, and our history with SKF 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 from SKF 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. Long standing relationships with our distributor partners allow us to support customers in a variety of different industries. At Ewellix, we don't just provide products; **we engineer integrated solutions** that help customers realise their ambitions.



## **EWELLI**×

## Improving lab efficiency with optimal precision and high reliability

#### Automation is improving the lab

As global demand for more testing and more test types increases, laboratory equipment automation is rising to meet it. But while automated systems are becoming more popular, they are also becoming more complicated. Diverse applications demand diverse solutions, and multiple instruments are being integrated into single-unit solutions. To meet application as well as production requirements, manufacturers need the right components and sub-assemblies. As a world leader in linear and rotary motion, Ewellix can help.

#### Ewellix is improving automation

Ewellix offers a complete range of motion systems and components to optimize instrument accuracy, reliability and workflow. From ball screws and profile rail guides to linear ball bearings Ewellix components and sub-systems are optimizing lab automation application performance.

Integrating Ewellix solutions into lab equipment designs can enable better throughput in syringe dispensing of tiny volumes of fluids, automatic dispensing and sampling of chemicals, DNA processing, and more. Ewellix tools, technology and support can help you design and develop next-generation automation equipment.



### Benefits

- Increase laboratory uptime
- Streamline lab workflow
- · Improve accuracy and optimize reliability
- Maximize operator productivity
- Reduce mechanical sample measurement times
- Minimize sample consumption
- Minimize equipment maintenance
- · Operate quietly
- · Require smaller footprints

## EWELLIX

# Better guiding and driving functionality

#### Develop unique motion solutions with Ewellix

Drawing on our deep knowledge in linear and rotary motion, Ewellix application engineering can support your design team to create customized positioning solutions, including complete mechatronic units with motorization and linear measurement capabilities. We'll help you integrate the linear and radial components to best meet your application demands.

#### **Ewellix Knowledge Engineering**

A high level of application knowledge combined with advanced simulation software and deep product knowledge can help you optimize designs in their early stages. While still in the prototype stage, Ewellix can help ensure design success from the start, reducing development time. Explore the merits of various options prior to the design freeze and validate your results with our engineers. In addition, Ewellix Engineering Consultancy Services can help you outperform the competition. Ewellix benefits include:

- Reduced total costs
- · Reduced time to market
- · Improved manufacturing and assembly
- Faster delivery times
- · Improved product reliability
- Reduced product maintenance
- · Lighter, more compact designs



### Solutions for guiding

#### Miniature profile rail guides and slides

Smooth running Ewellix miniature profile rail guides offer excellent performance for linear guidance in IVD instruments. Easy to mount and small enough to enable overall assembly size reductions, Ewellix miniature profile rail guides also deliver robust, reliable performance to minimize maintenance costs. Guides are available in a wide range of rail sizes and carriage styles to meet most space constraints and load-carrying capacities ( $\rightarrow$  fig. 1).

- A wide range of carriages and rails are available
- $\boldsymbol{\cdot}$  Optimized geometry in the ball recirculation area
- All steel parts are corrosion-resistant
- Factory pre-lubrication
- Both rail sides can function as reference surface
- Customized solutions available

#### Linear ball bearing LBBR

Ewellix linear ball bearings offer a flexible, easy-to-integrate way to power up, or downsize equipment designs. Robust, low-maintenance LBBR linear ball bearings combine a plastic cage and hardened stainless steel raceway segments to guide the ball sets. Self-holding in the housing, the bearings are well suited to integrated bearing-housing solutions, even in corrosive environments ( $\downarrow$  fig. 2).

- Enables downsizing up to 3 mm shaft diameter
- Light running with low friction
- Factory pre-lubrication
- Faster product cycles
- Low-noise operation
- Robust design and double-lip sealing



Fig. 1



### Solutions for driving

#### Miniature ball screws

Ewellix miniature ball screws are key to transforming rotary action into linear motion. Featuring rolling elements, balls, or rollers between the nut and the screw shaft, these high efficiency screws are very compact, with a nominal diameter from 6 to 16 mm and a lead from 2 to 12,7 mm. Back-driving makes them highly efficient for excellent repeatability. Available in stainless steel and oversize balls on request. ( $\rightarrow$  fig. 3).

- Enables equipment miniaturization
- Compact, lightweight design
- High positioning accuracy
- Mounts easily
- Smooth running and strong back driving
- Eliminates backlash
- Corrosion-resistant
- Internal recirculation with inserts available



Fig. 3



## EWELLIX

## **Application offer match**

#### Solutions for clinical laboratory machines

- · Chemical analyzers
- Immunoassay analyzers
- Robotic analyzers
- Urine analyzers
- · Blood analyzers
- Spectroscopy analyzers
- Chromatography analyzers
- Sample processors
- Centrifuges
- · Pathology tissue scanners
- Microscopes
- Liquid dispensers











Immunoassay analyzers

Clinical chemistry Sample analyzers processors

Liquid-handling C robots a

Chromatography analyzers

Pathology tissue scanners

Miniature profile rails	•	•	•	•	-	•
Miniature ball screws	٠	•	-	•	•	•
Linear ball bearings	•	•	•	-	-	-

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