



LIFE SCIENCE

Motion Solutions for Laboratory & Medical Automation



PRECISION. RELIABILITY. CONTROL.

The future of laboratory and medical automation is driven by precision, reliability, and intelligent motion control. Together with its technology partners, BIBUS Kft. delivers advanced linear motion and automation solutions for laboratory equipment, diagnostic systems, imaging applications, and precision medical technologies. Compact design, micron-level positioning accuracy, and customizable system integration ensure maximum performance for demanding applications.



LABORATORY APPLICATIONS

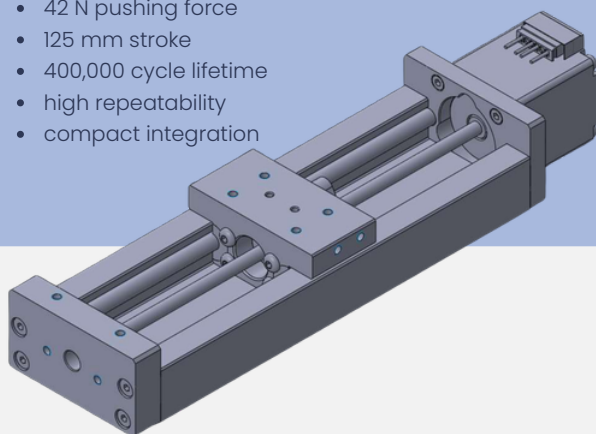
ENGINEERED FOR HIGH-PRECISION
LABORATORY SYSTEMS

Advanced laboratory and medical systems require highly reliable, compact, and precise motion solutions. BIBUS Kft. supports laboratory automation projects with customized linear systems, precision positioning technologies, and integrated motion control solutions for demanding applications.

Blood tester sampling unit

Compact linear systems for precise and repeatable sample handling in automated blood testing applications.

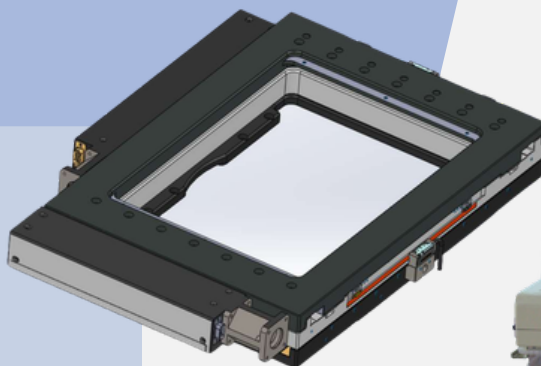
- 42 N pushing force
- 125 mm stroke
- 400,000 cycle lifetime
- high repeatability
- compact integration



Microscope Positioning Systems

High-precision positioning solutions for advanced imaging and laboratory analysis equipment.

- positioning accuracy $<1\ \mu\text{m}$
- backlash-free operation
- cross roller bearing systems
- cleanroom compatible



Automated Protein Affinity Cleaning System

Integrated automation solution designed for efficient and reliable protein purification processes.

- duplex system architecture
- integrated process control
- HMI-based operation
- customized mechanical & electrical design
- external software integration



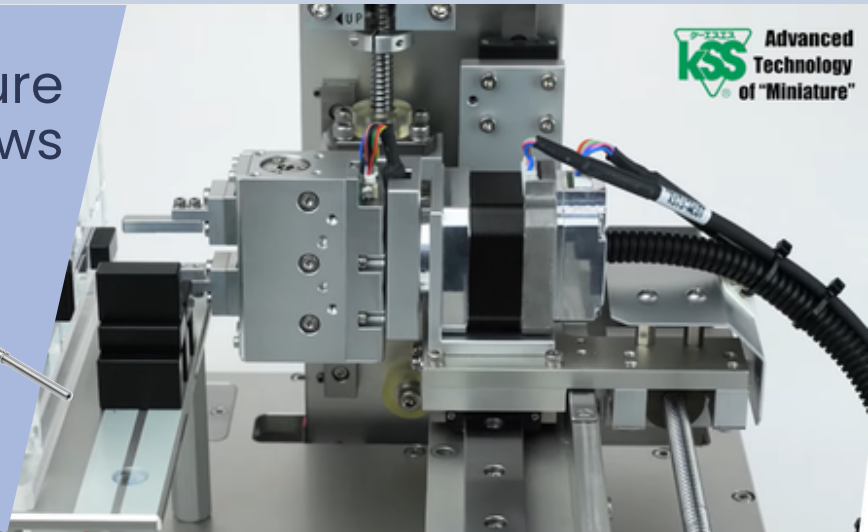
TECHNOLOGIES BEHIND PRECISION MOTION

Advanced laboratory and medical systems require compact, highly accurate, and reliable motion technologies. BIBUS Kft. offers precision linear motion and automation solutions designed for demanding laboratory applications where performance, repeatability, and long-term reliability are essential.

KSS Miniature Ball Screws

Ultra-compact precision ball screw solutions designed for high-accuracy positioning and miniature laboratory automation systems.

- ball screw production from Ø1.8 mm
- high positioning accuracy
- rolled and ground versions
- stainless steel options
- customized screw end machining



Precision Guidance Technologies

Compact guidance and linear support technologies for smooth and reliable motion in laboratory automation equipment.

- glide screws
- miniature profile rails
- round rails
- maintenance-free operation
- cleanroom compatible solutions
- smooth linear guidance



CKD Automation solutions

Compact automation technologies for laboratory and medical systems including electric linear units, controllers, and rotary actuators.

- slider and rod type linear units
- integrated controller solutions
- ABSODEX rotary actuators
- compact automation design
- high reliability and precision
- energy-efficient operation





INTEGRATED MOTION CONTROL & AUTOMATION

Integrated motion control and automation technologies ensure reliable, repeatable, and efficient operation in modern laboratory and medical systems. BIBUS Kft. offers compact actuation and automation solutions designed for demanding laboratory applications.

Stepper motor linear actuators

Compact and integrated actuator solutions developed for precise and repeatable laboratory automation systems.

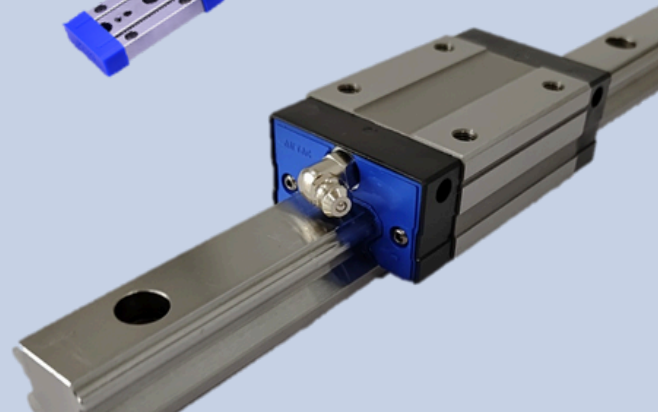
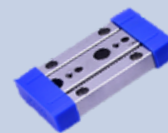
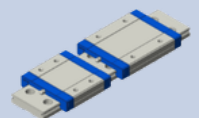
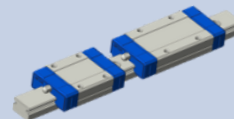
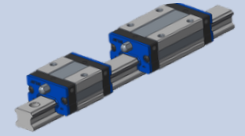
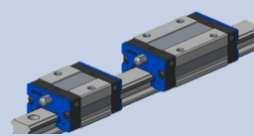
- rotating screw or rotating nut versions
- compact linear motion
- reduced noise operation
- custom lead configurations
- precise positioning performance
- metric and inch versions



Linear motion solutions

Compact linear motion solutions designed for reliable and efficient automation systems.

- linear motion product portfolio
- compact guide systems
- high manufacturing capacity
- reliable automation solutions
- suitable for precision automation applications



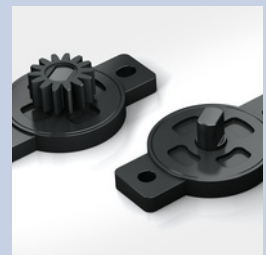
PRECISION COMPONENTS & SYSTEM STABILITY

Precision laboratory and medical systems require stable operation, reliable positioning, and high-quality supporting components. BIBUS Kft. offers compact precision components and vibration control technologies designed for efficient and long-term system performance.

RELIABLE PERFORMANCE FOR SENSITIVE AUTOMATION SYSTEMS



Modern laboratory and medical automation systems require far more than precise linear motion alone. Long-term operational reliability, smooth movement, vibration reduction, and stable system performance are equally essential for achieving accurate and repeatable results. BIBUS Kft. offers a wide range of precision components and supporting technologies designed to improve the efficiency, reliability, and operational stability of laboratory automation equipment and sensitive medical systems. From miniature couplings and rotary dampers to compact level switches and vibration control systems, these technologies help optimize motion quality, protect sensitive equipment, and ensure stable operating conditions in demanding applications. Compact dimensions, reliable integration, and precision-oriented design make these solutions ideal for laboratory automation, imaging systems, fluid handling equipment, and other high-precision industrial applications.



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