

FEX PRECISION BEARING SOLUTIONS

High-End Bearing & System Solutions
Driven by European Engineering Integration



HIGH
PRECISION



HIGH
RELIABILITY



CUSTOM
SOLUTIONS



SYSTEM
INTEGRATION

P R E C I S I O N I N M O T I O N



High Precision



High Reliability



Customized Solutions



System Integration

www.fexbearing.com

01 FEX Brand Positioning

A Solution Partner in Precision Motion

FEX is a solution-oriented brand focused on high-performance bearing and system applications.

By integrating European manufacturing resources and engineering capabilities, FEX delivers a complete portfolio ranging from precision bearings to system-level solutions.

**We don't just supply products —
we provide reliable solutions for complex operating environments.**



Our Core Application Areas



Aerospace & High-End Equipment

High reliability and safety critical applications



Semiconductor & Vacuum Systems

High purity and specialized environment applications



Automation & Precision Motion Systems

High precision and high speed requirements



Food, Energy & Special Environments

Corrosion resistance, extreme temperature and special conditions



Precision in Motion



Driven by Expertise



Committed to Your Success

www.fexbearing.com

02

02. Capability Framework

FEX builds its strength on integrated engineering capabilities and a stable manufacturing ecosystem, ensuring consistent performance and reliable delivery.



01

Engineering Support

Application analysis and technical solution design for complex conditions



02

Precision Manufacturing

High-precision machining and controlled assembly processes



03

Application Expertise

Experience in high-end industries and demanding environments



04

Customization Capability

Flexible design for materials, structure, lubrication and sealing



05

System Integration

From individual bearings to complete system solutions



A complete capability framework supporting high-performance and high-reliability applications.



03. Core Strengths

Built for Performance. Engineered for Challenges.

FEX combines precision engineering, advanced manufacturing and application expertise to deliver reliable solutions for the most demanding environments.



01 High Precision

ISO P4 / P2 level accuracy for demanding applications.



02 High Reliability

Designed for critical and long-life performance.



03 Custom Engineering

Flexible design tailored to specific requirements.



04 System Integration

From components to complete system solutions.



05 Extreme Condition Capability

Suitable for vacuum, high-speed, low-temperature and harsh environments.



06 Project Support Capability

Engineering support from concept to delivery.



Delivering performance, reliability and flexibility across high-end applications.



Precision



Reliability



Customization



Integration



Support

04. Product Portfolio

A comprehensive product portfolio covering precision bearings, specialized applications and system-level solutions.



Precision Bearings

High-precision standard bearing solutions.



Aerospace Applications

High-reliability solutions for critical environments.



Integrated Bearing Units

Compact and optimized structural solutions.



System Assemblies

Complete bearing system and shaft solutions.



Vacuum & Semiconductor Bearings

Clean and high-purity environment applications.



High-Speed & Motion Systems

High-speed and precision motion applications.



Food & Clean Environment Solutions

Corrosion-resistant and hygienic designs.



Cryogenic & Extreme Condition Bearings

Solutions for low temperature and harsh environments.



A complete product ecosystem supporting diverse high-end applications.



Precision



Reliability



Customization



Integration



Support

05. Precision Bearings

FEX precision bearings form the foundation of our product portfolio, delivering high accuracy and stable performance for demanding applications.



Key Features



High Precision Performance

Designed to meet strict accuracy and high-speed requirements.



Stable Operation

Low vibration and optimized friction for long-term reliability.



Flexible Configuration

Various options for materials, cages, lubrication and sealing.



Typical Applications



Precision Machinery



Measurement and Control Systems



Automation and Micro-drive Systems



A reliable foundation supporting advanced bearing and system solutions.



High Precision



High Reliability



Engineering Driven



System Solutions

06. Aerospace & High-End Applications

FEX provides high-reliability bearing solutions designed for demanding applications with strict performance and safety requirements.



Typical Applications



Flight control systems



Hydraulic and fuel systems



High-speed rotating systems



Precision stabilization platforms

Key Capabilities



High reliability design for critical applications



Stable performance under complex operating conditions



Adaptation to high-speed and high-load environments



Custom solutions for specialized requirements



Supporting high-end applications with reliability, precision and engineering expertise.



High Reliability



Precision Engineering



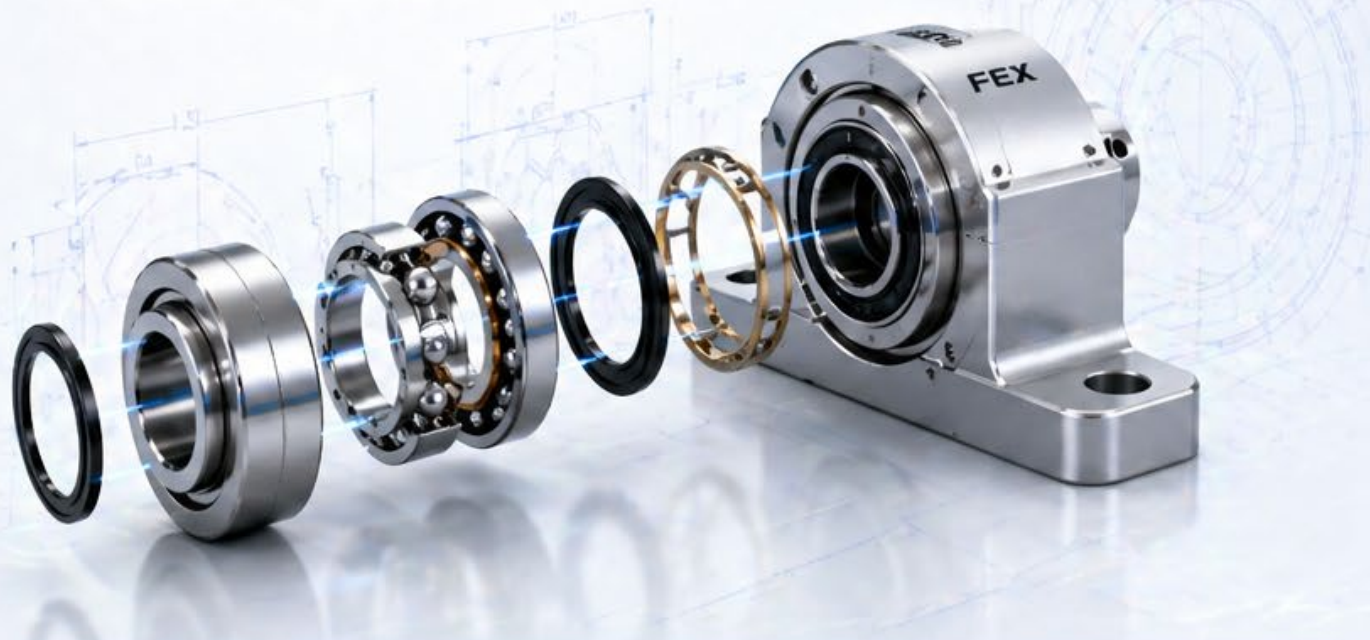
Safety Focused



Custom Solutions

07. Integrated Bearing Units

FEX integrated bearing units combine multiple components into optimized assemblies, delivering higher precision and simplified system design.



Pillow Block
Integrated Unit



Flange
Integrated Unit



Take-up
Integrated Unit



Compact
Integrated Unit

Integrated Configurations



Bearing + housing integrated design
Compact structure with optimized rigidity



Flange and mounting structure integration
Various mounting options for easy installation



Sealing and lubrication system integration
Improved protection and maintenance performance



Shaft and raceway integrated solutions
Higher precision and better concentricity

Customer Value



Reduced number of components



Simplified assembly process



Improved system accuracy



Enhanced operational reliability



Optimized supply chain efficiency



Delivering compact, efficient and
high-performance system solutions.



Compact Design



Easy Assembly



High Precision



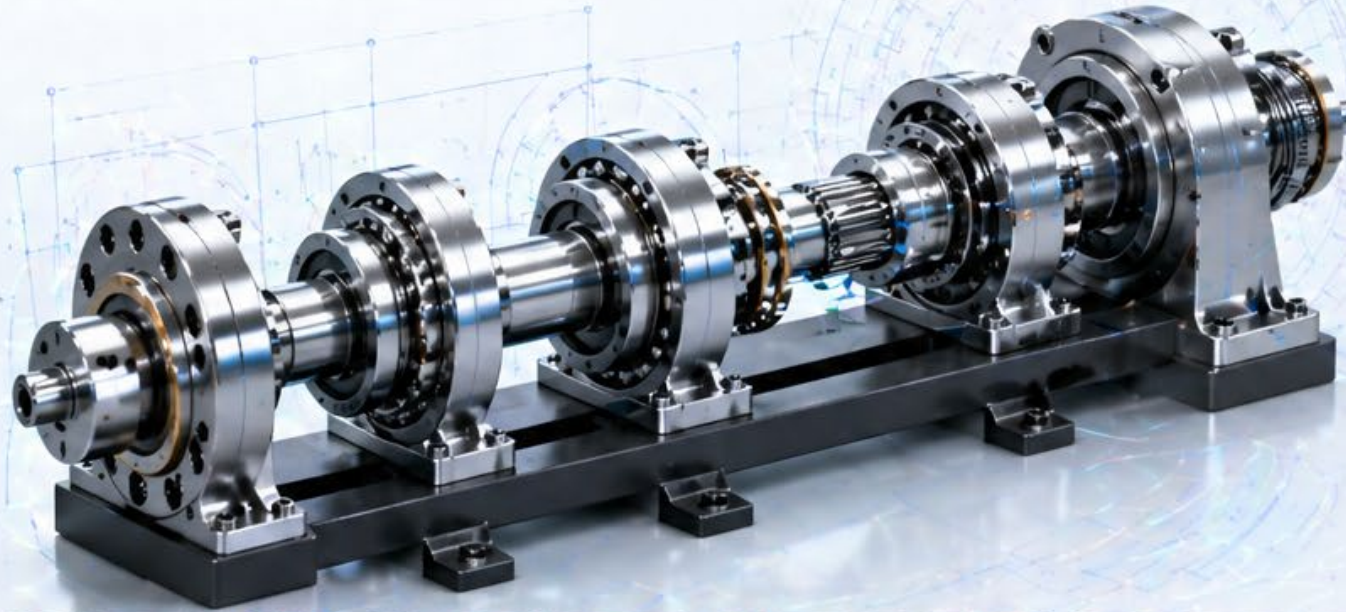
Reliable Operation



Efficient Supply Chain

08. System Assemblies

FEX provides complete system assemblies, integrating multiple components into ready-to-use solutions for complex applications.



Precision Shaft Assembly



Multi-Bearing System



Integrated Drive System



Customized System Solution

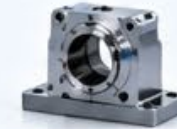
Assembly Components



Precision bearings and complete shaft systems



Housing, spacers and locking mechanisms



Sealing and lubrication components



Customized functional parts



Customer Value



Reduced assembly complexity



Improved system consistency



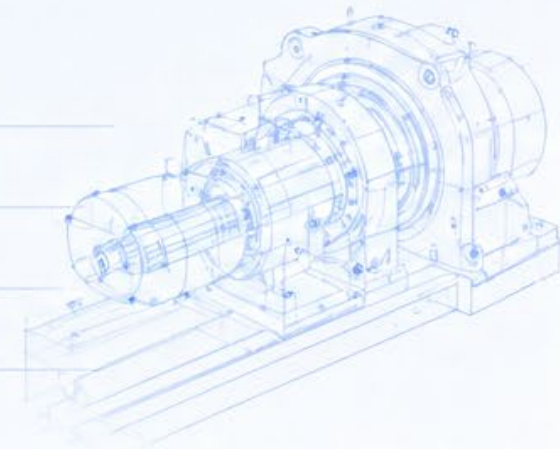
Higher operational stability



Simplified procurement process



Faster project delivery



Delivering complete system solutions from components to fully integrated assemblies.



System Integration



High Consistency



High Stability



Fast Delivery



One-Stop Solution

09. Vacuum & Semiconductor Bearings

FEX provides advanced bearing solutions for vacuum and semiconductor applications, designed for clean environments and stable long-term operation.



Clean Environment

Designed for ultra-clean and low particle generation.



Reliable Operation

Consistent and stable long-term performance.



Advanced Solutions

Engineered for demanding vacuum and semiconductor applications.

Typical Applications



Vacuum pump systems
(molecular pumps, dry pumps)



Semiconductor
manufacturing equipment



Wafer handling systems



Precision inspection and
measurement equipment



Key Capabilities



Low outgassing materials and lubrication solutions



Clean design for contamination-sensitive environments



Stable performance at high speeds



Custom solutions for specialized conditions



Designed for clean, stable and high-performance operation in demanding environments.



Clean Design



Low Outgassing



High Speed



High Reliability



Custom Solutions

10. High-Speed, Robotics & Medical Applications

FEX provides precision bearing solutions for high-speed, high-accuracy and sensitive applications, ensuring stable and reliable motion performance.



01 High-Speed Spindle Bearings

- ✓ Designed for high-speed rotation and precision machining applications
- ✓ High rigidity and low friction performance



Precision



Stability

02 Robotics Bearings

- ✓ Supporting high-precision positioning and repeatability
- ✓ Suitable for complex motion systems and automation



Low Noise



High Speed

03 Medical Equipment Bearings

- ✓ Designed for clean, low-noise and reliable operation
- ✓ Suitable for precision medical and life science equipment



Clean Operation



Long Life



Delivering stable and precise motion performance for advanced applications.



Precision Machining



Robotics & Automation



Medical & Life Science



High-Performance Bearings

11. Food & Clean Environment Solutions

FEX provides bearing solutions designed for clean, hygienic and corrosion-resistant environments, ensuring safe and reliable operation.



Key Features

-  **Corrosion-resistant materials** for harsh environments
-  **Clean lubrication solutions** to reduce contamination risks
-  **Optimized design** for low maintenance
-  **Stable performance** for long-term operation



Typical Applications

-  Food processing and packaging equipment
-  Beverage filling and conveying systems
-  Clean production lines
-  High-hygiene automation equipment

-  Designed for clean, safe and reliable performance in sensitive environments.



Supporting safe production with clean, reliable and corrosion-resistant solutions.



Hygienic Design
Clean & Safe



Corrosion Resistance
Long Service Life



Low Maintenance
High Efficiency



Clean Lubrication
Reduced Risk

12. Cryogenic & Extreme Condition Bearings

FEX provides reliable bearing solutions for extreme low-temperature and demanding environments, ensuring stable performance under challenging conditions.



Stable Performance

Reliable operation under extreme conditions



Low-Temperature Adaptation

Engineered for wide low-temperature range



High Reliability

Long service life and consistent performance



Engineered Solutions

Custom designs for specialized requirements

Typical Applications



LNG (Liquefied Natural Gas) systems



Liquid hydrogen / oxygen equipment



Aerospace cryogenic systems



Industrial gas processing systems



Key Capabilities



Designed for extreme low-temperature environments



Optimized materials and lubrication solutions



Reduced friction and thermal influence



Custom solutions for complex operating conditions



Engineered for stable and reliable performance in extreme environments.



Extreme Low Temperature



High Stability



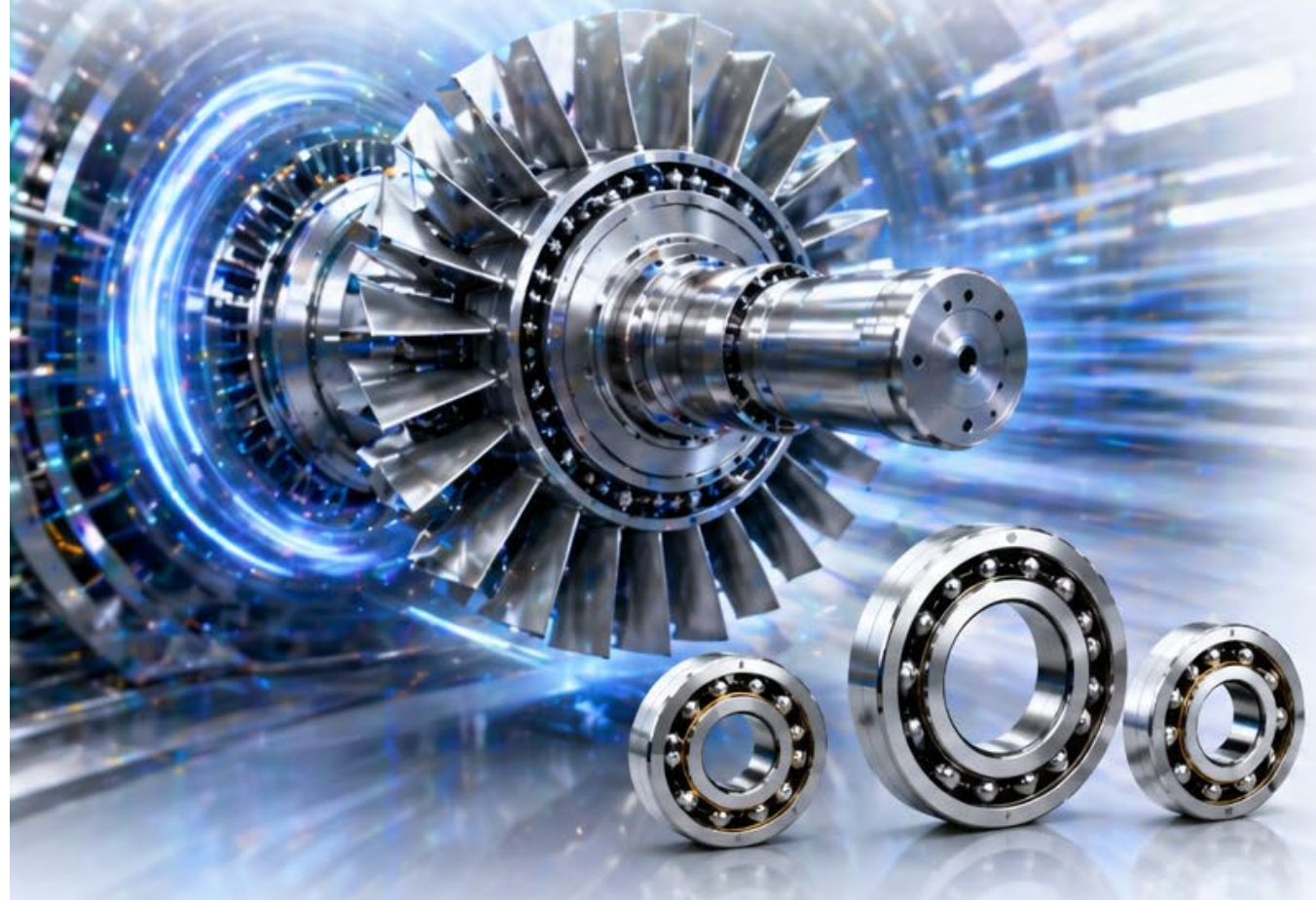
Reliable Operation



Custom Solutions

13. High-Speed Power & Advanced Motion Systems

FEX delivers high-performance bearing solutions for ultra-high-speed and demanding dynamic applications.



Key Capabilities

-  Designed for ultra-high-speed operation
-  Optimized structure for reduced friction and energy loss
-  Advanced materials for durability and stability
-  Custom solutions for complex dynamic conditions



Typical Applications



High-speed power systems



Compact propulsion systems



Precision rotating equipment



Specialized high-speed machinery



Engineered for high-speed performance and advanced motion control applications.



Ultra-High-Speed
Stable operation at extremely high speeds.



High Efficiency
Optimized design for reduced friction and energy loss.



High Reliability
Robust materials and structure ensure long service life.



Precision Performance
High accuracy and stability for demanding applications.



Custom Solutions
Tailored designs for specialized requirements.

14. Special Bearing Capability System

FEX has established a comprehensive capability system to support diverse high-performance and specialized applications.



Customer Value

- Complete bearing and system solutions
- Support for multi-industry applications
- Reduced technical selection complexity
- Improved system reliability and performance

Key Industries

- Aerospace
- Semiconductor & vacuum systems
- Automation & robotics
- Energy & special equipment



Comprehensive Solution Capability
From components to system assemblies.



Engineering Support
Professional engineering team and technical support.



Custom Design & Development
Tailored solutions to meet specialized requirements.



Quality & Reliability
Strict quality control to ensure long-term stable performance.



Global Service Network
Responsive support and reliable service worldwide.



A complete capability system supporting advanced engineering solutions.



High Performance



Wide Environment Adaptability



Reliable & Durable



Innovative Solutions

FEX – Your Partner in Precision Motion

Delivering reliable, high-performance solutions
for demanding applications worldwide.



Engineering-driven Solutions

Advanced engineering expertise
for high-performance applications.



Strong Customization Capability

Tailored solutions to meet
unique customer requirements.



Reliable Performance

Designed for stability, durability
and long service life in critical conditions.



Integrated System Solutions

From components to systems,
delivering complete solutions.

Precision in Motion

Thank You

Committed to long-term partnership and engineering excellence.