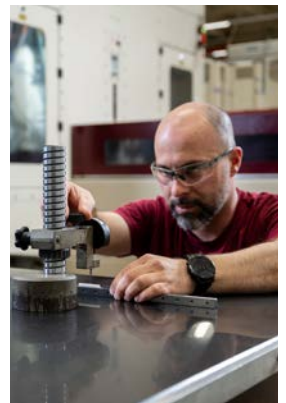
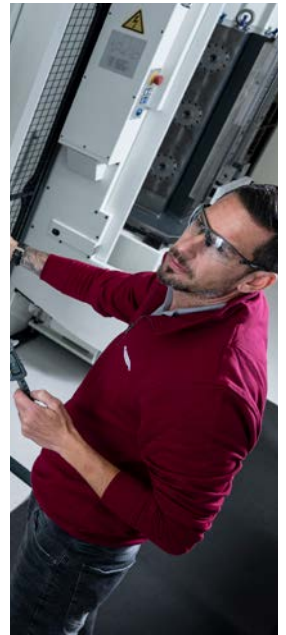


SCHNEEBERGER

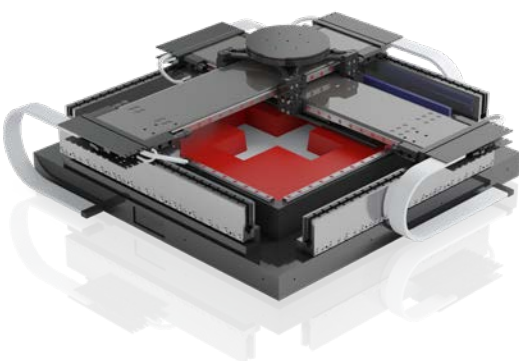


Essentials for the Best

From standardized components to complete system solutions

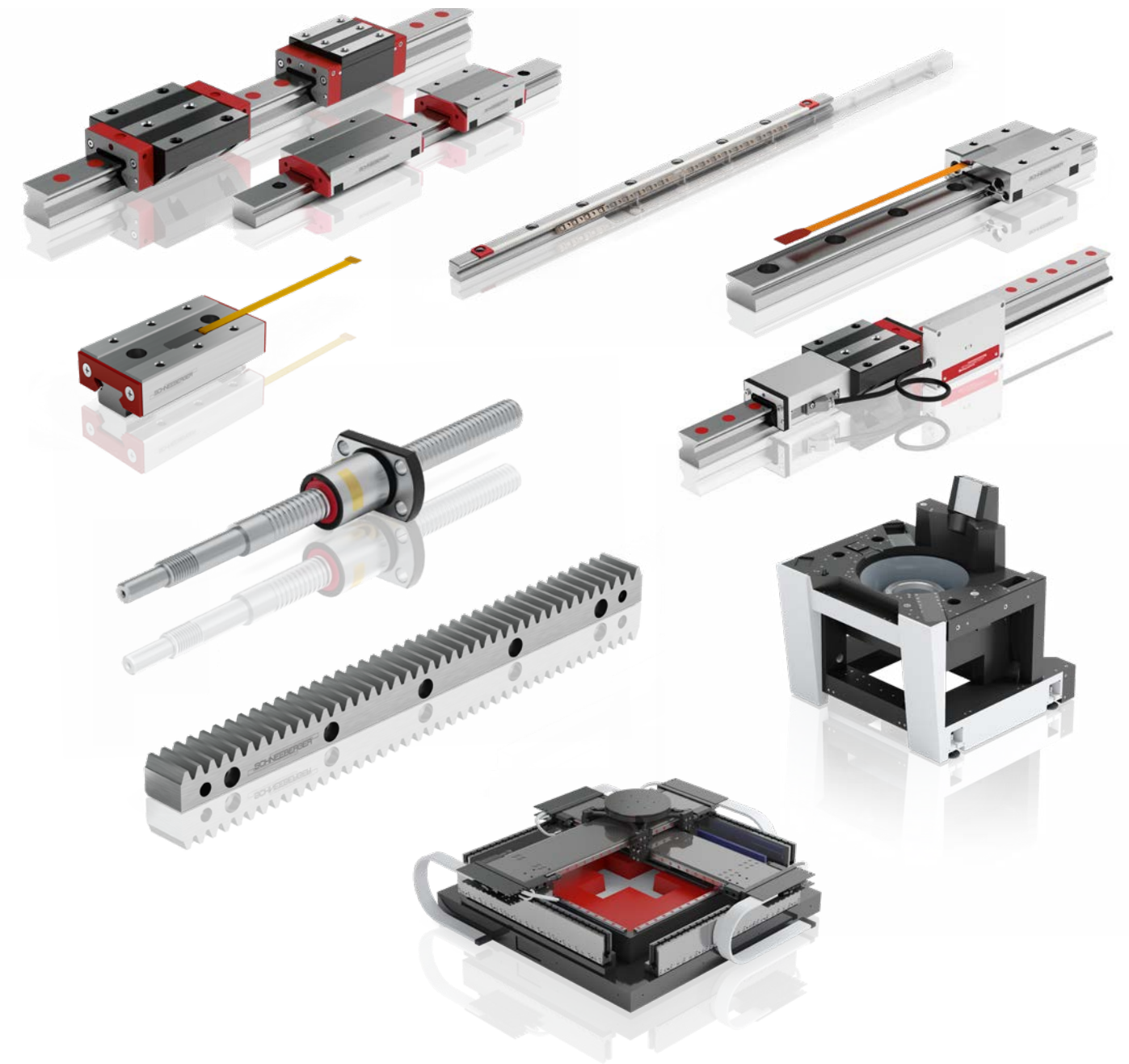
The leading edge in positioning

Company Brochure



HIGH PRECISION.
INNOVATIVE. RELIABLE.

ESSENTIALS FOR THE BEST



INDEX

1. Introduction: Guiding Principles
2. Product World
 - 2a. Guide
 - 2b. Measure
 - 2c. Drive
 - 2d. Machine Base
 - 2e. Systems
3. Industry Expertise Applications
4. Quality And Sustainability

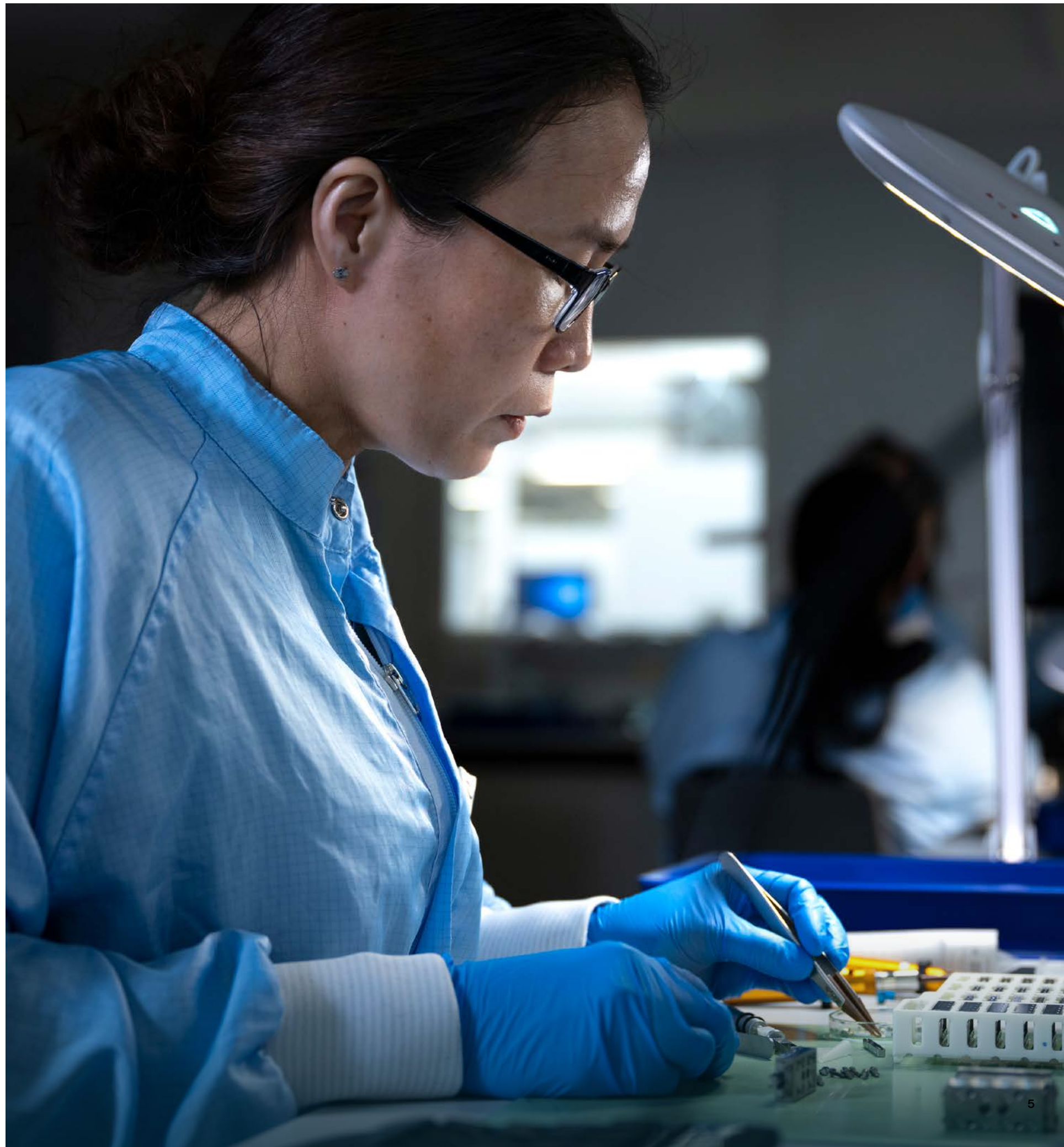
1

INTRODUCTION

GUIDING PRINCIPLES

From standardized components
to complete system solutions

SCHNEEBERGER delivers best-in-class
linear motion technology





Essentials for the Best High precision. Innovative. Reliable.

From standardized components to complete system solutions

SCHNEEBERGER delivers best-in-class linear motion technology

PRECISE LINEAR TECHNOLOGY

We develop and manufacture guides, integrated measuring systems, ball screw drive, gear racks, mineral casting, slides, and positioning systems.

ACCURACY AND RELIABILITY

Our products meet micrometer-precise tolerances and guarantee consistent performance throughout their entire life cycle—even in continuous operation.

INTEGRATED TECHNOLOGIES

Guide, measuring, and drive systems are combined into compact modules. This simplifies integration and increases efficiency.

CUSTOMIZED SOLUTIONS

Specifically designed systems, high-quality materials, functional coatings, and individually adapted geometries ensure maximum precision in every application.

OUR EXPERTISE – BUILT FOR PERFORMANCE AND SUSTAINABILITY

Our in-house development of core components including mineral casting, drives, measuring systems, and linear guides—forms the foundation for fully integrated, ready-to-install systems. Seamlessly combined with control technology, our solutions meet the highest standards of precision and quality.

At the same time, we design with sustainability in mind. From low-friction linear bearings and energy-saving direct drives to cold-cast mineral components and recyclable materials—our technologies reduce energy consumption, minimize CO² emissions, and support the creation of future-ready, resource-efficient machines.

APPLICATIONS IN HIGH VACUUM AND CLEAN ROOMS

Our products are optimized for use in high vacuum, cleanroom, and other sensitive environments.

They offer reliable performance, a long service life, and meet the highest technical requirements for the industry of tomorrow.





VISION

To be the first name that comes to mind when engineers and innovators face unsolved challenges in linear motion. We build lasting partnerships through precision-engineered products and dedicated service. Our ambition goes far beyond that. We empower progress. By enabling better machines, we help shape a more efficient, precise, and sustainable world. We aim not only to move things but to move industries, ideas, and possibilities forward.

MISSION STATEMENT

As a global, financially and technologically sound, family-owned and operated company, we and our highly motivated employees make a substantial and sustainable contribution to our customers' success.

Our high-quality, high-precision products and reliable delivery play an essential role in the successful development, manufacture, and sale of products in the future-oriented market.

GLOBAL PLAYER

OUR VALUES

OUR PRODUCTS ARE PRECISE, INNOVATIVE AND RELIABLE

This is our hallmark. They are made possible by a company culture built on responsibility, excellence, and true partnership. We listen carefully. We think ahead. We act with precision. This is how we achieve measurable results and create long-term success.

FACTS AND FIGURES

Local Support Worldwide
(e.g. 24 h Response Time in Europe)
Logistics Infrastructure in Many Industrial Regions of the World.



100'000 Sqm

Production Area
Worldwide



100

Patents



4000

Customers trust in
SCHNEEBERGER



1400+

Employees
Worldwide



15

SCHNEEBERGER
Companies



>100

SCHNEEBERGER Sales Engineers and Partners
in all Industrial Regions of the World



14

Production
Locations

2

ESSENTIALS FOR THE BEST

PRODUCT WORLD

From standardized components to
complete system solutions



GUIDE

Profile Linear Guideways
Linear Bearings and Frictionless Tables

MEASURE

Integrated Distance
Measuring Systems

DRIVE

Ball Screws
Gear Racks

MACHINE BASE

Mineral Casting
Special Applications techcon®

SYSTEMS

Precision Positioning Systems
Motion Systems

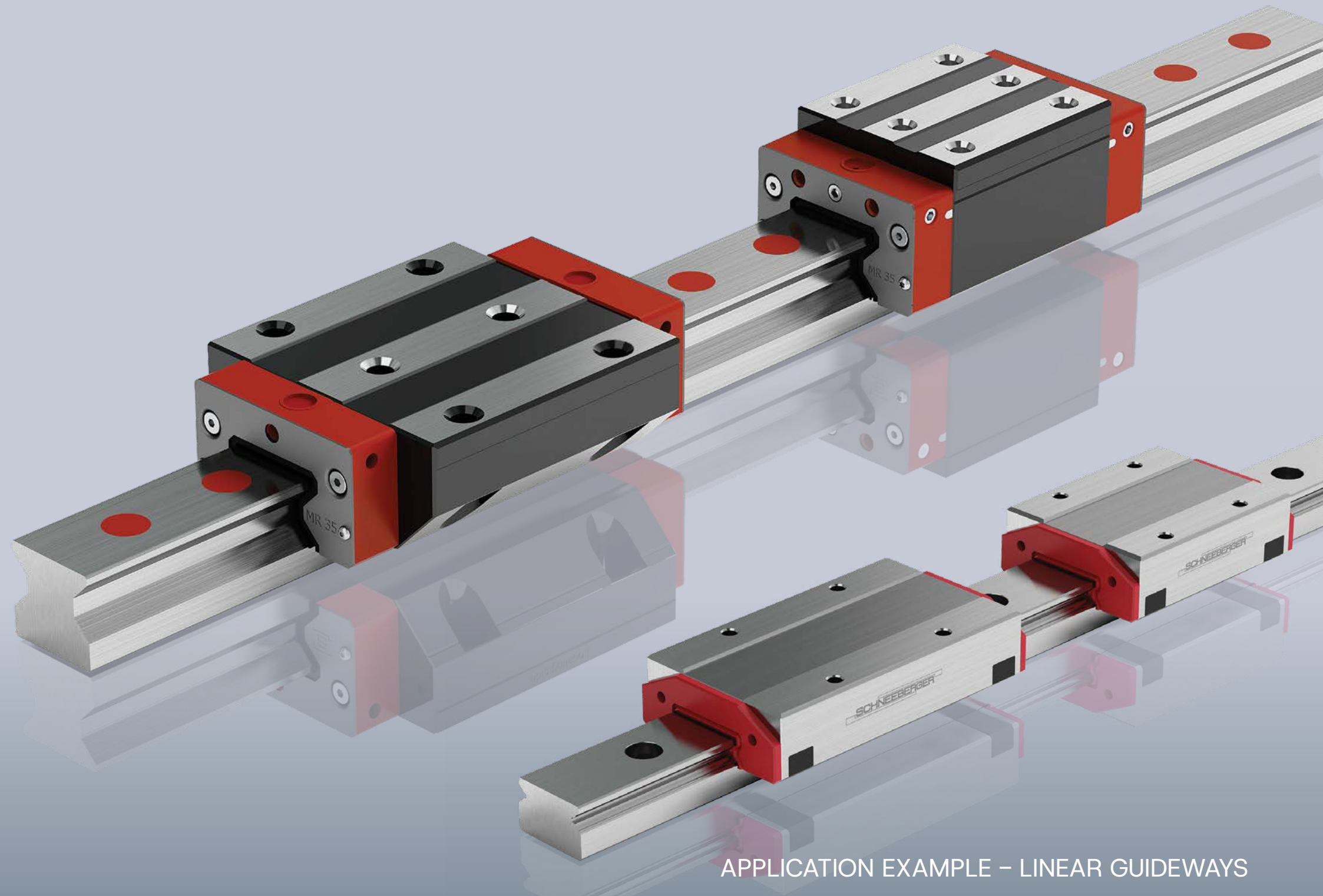
2a

GUIDE

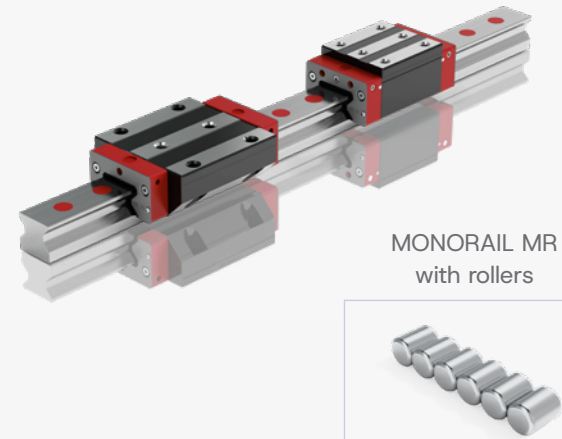
Profile Linear Guideways
Linear Bearings and Frictionless Tables

Applications / Industries

Machine tool
Automation / Robotics
Metrology
Laser processing / Optics
Semi-Conductor & Electronic
Packaging industry
Medical & Life Sciences



APPLICATION EXAMPLE – LINEAR GUIDEWAYS
HIGHLY PRECISE LINEAR TECHNOLOGY
FOR LONG-LASTING MACHINES
AND EQUIPMENT



MONORAIL MR
with rollers

MONORAIL MR

Sizes: 25, 30, 35, 45, 55, 65, and 100

7 carriage types available

Optional integrated AMS measuring system & PULSE PRO *



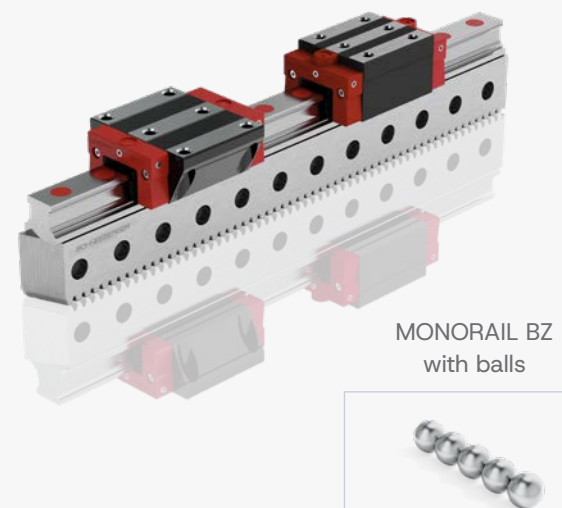
MONORAIL BM
with balls

MONORAIL BM

Sizes: 15 to 3 m one-piece and 20, 25, 30, 35, 45, to 6m one piece

Width variance on different carriage types

Available in corrosion-resistant steel for BM WR/SR systems *



MONORAIL BZ
with balls

MONORAIL BZ

Sizes: BZ 25 and BZ 35

Toothed rack in a high quality (hardened and ground)

* Unlimited travel distances achievable through joined rail



MINISLIDE - MICRO FRICTIONLESS TABLES

Ultra-high rigidity and precision

Vacuum compatible to 10^{-6} mbar

Max speed: 3 m/s



MINIRAIL MINIATURE GUIDEWAYS

Compact and smooth low-pulsation motion

Max speed: 5 m/s

Max acceleration: 300 m/s²



LINEAR BEARING FORMULA-S

High-speed capability: up to 1 m/s

Acceleration up to 300 m/s²

Vacuum compatible to 10^{-7} mbar

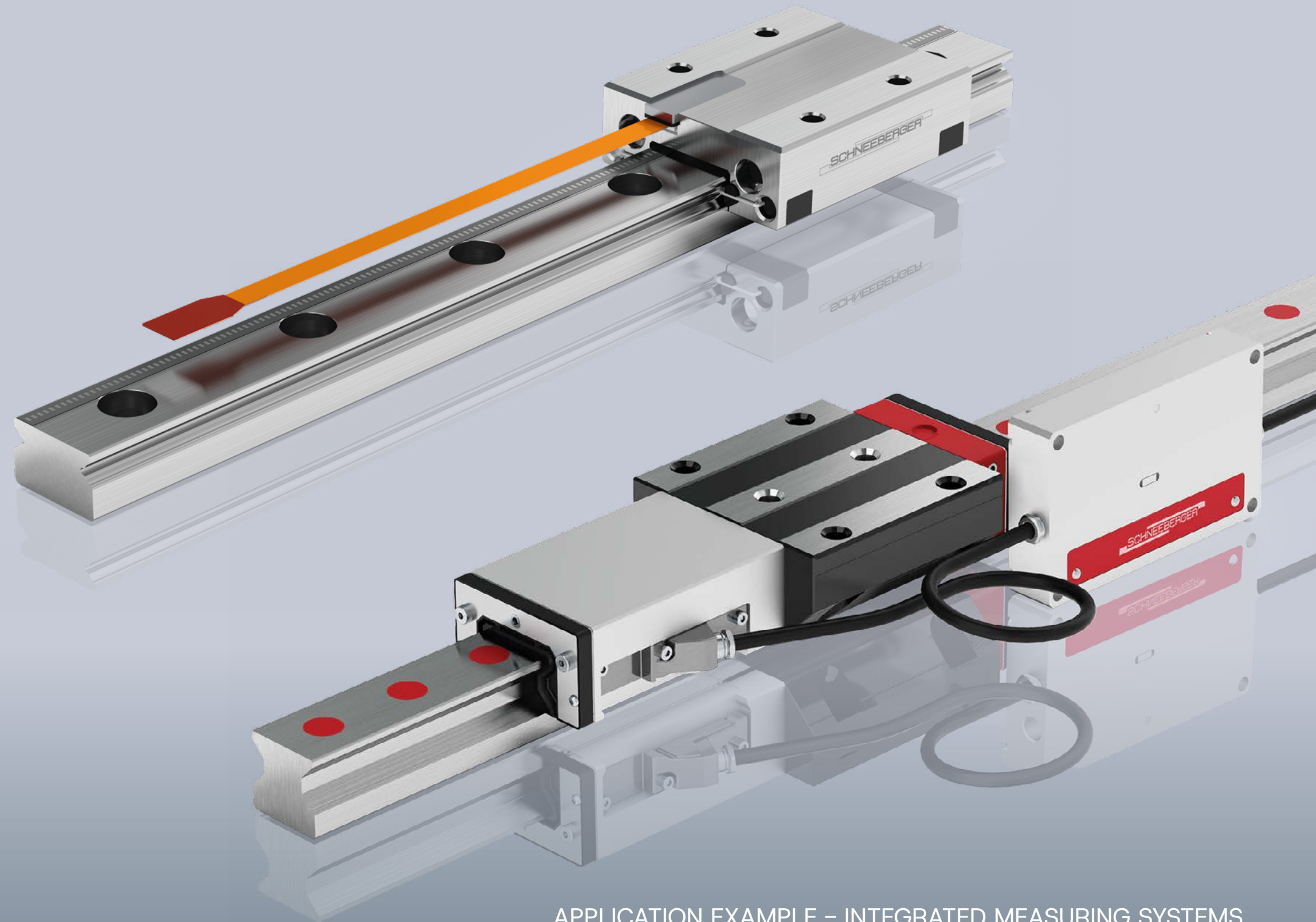
2b

MEASURE

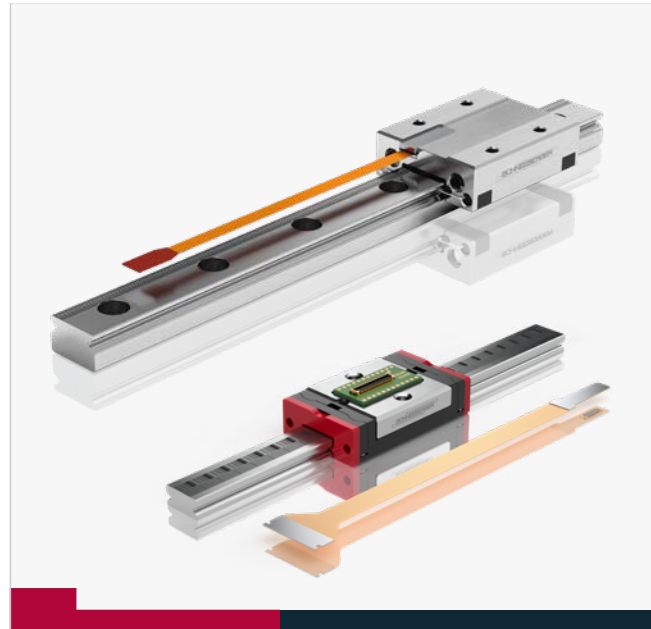
Integrated Distance
Measuring Systems

Applications / Industries

Machine tool
Laser processing / Optics
Metrology
Semi-Conductor & Electronic
Medical & Life Sciences
Aerospace & Defense



APPLICATION EXAMPLE – INTEGRATED MEASURING SYSTEMS
HIGHLY PRECISE LINEAR TECHNOLOGY
ENABLING THE MINIATURIZATION OF
ELECTRONIC COMPONENTS

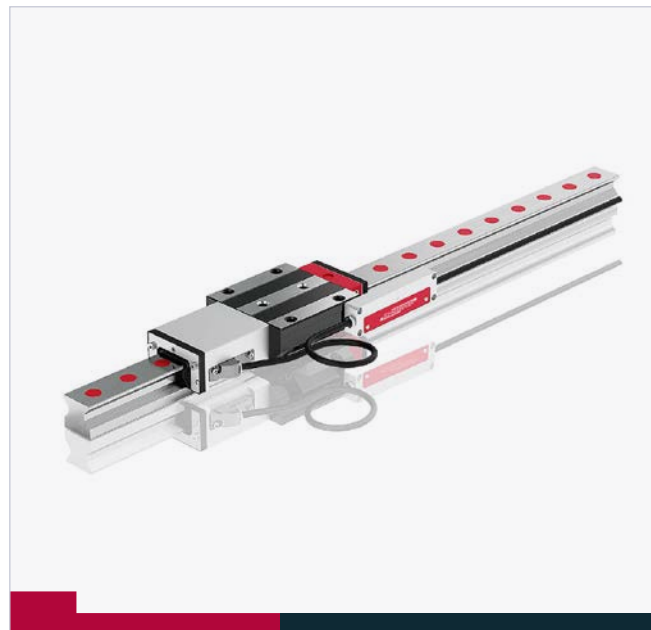


INTEGRATED MEASURING SYSTEM MINISCALE PLUS AND SAM

Built on profile miniature guideway MINIRAIL platforms

MINISCALE: integrated absolute measuring system
SAM: optical measuring system

Resolution of 0.1 μm



INTEGRATED MEASURING SYSTEM AMS

Built on profile linear guideway MONORAIL platforms

Embedded magnetoresistive sensor

Available with analog or digital interface

Scalable lengths and continuous measurement for long axes



INTEGRATED MEASURING SYSTEM MINISLIDE MSQ Scale

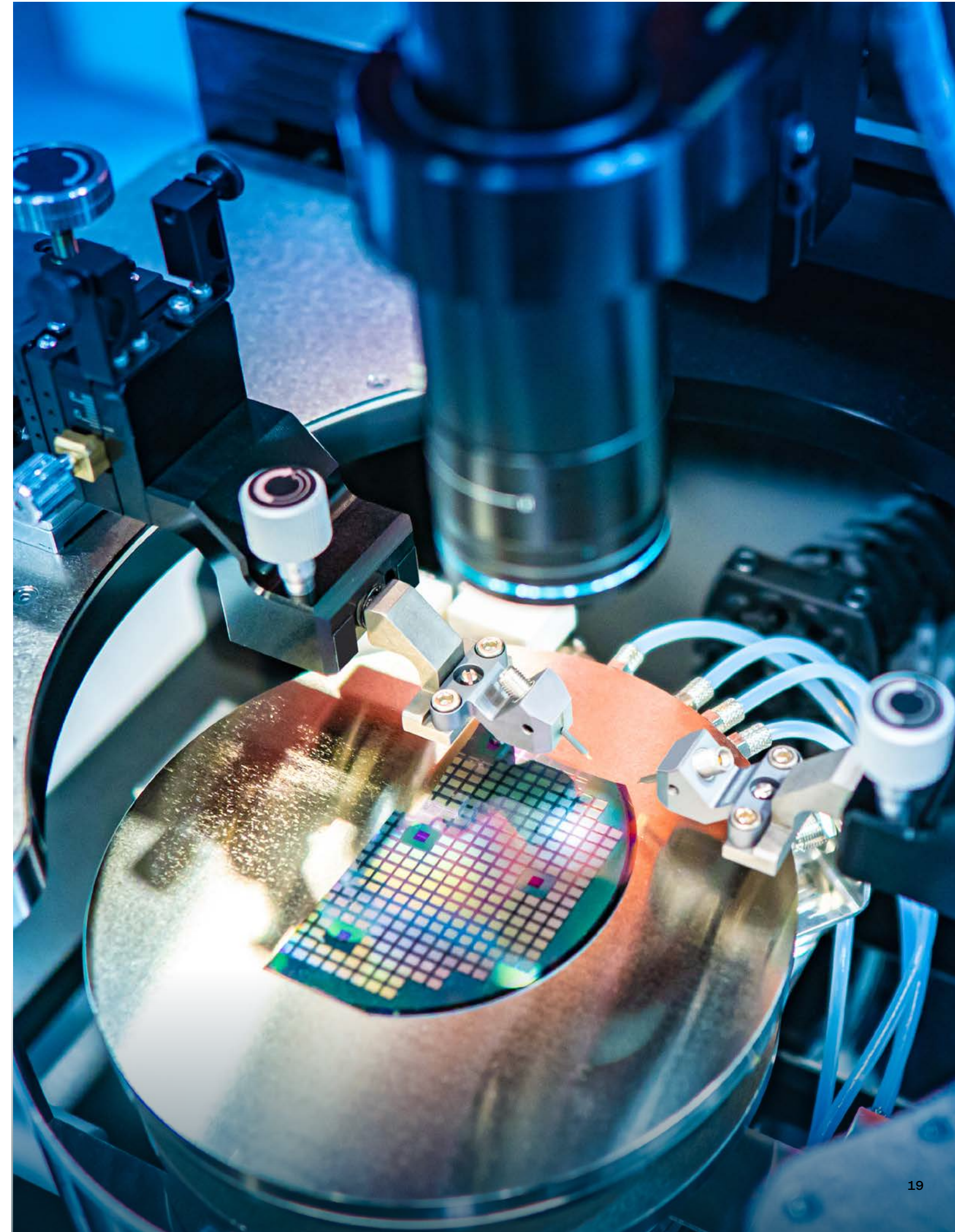
Built on micro frictionless tables platforms

Intelligent measuring system for demanding applications

Easy installation – sensor integrated and sealed in the carriage

Acceleration up to 300 m/s^2 , resolution of 0.1 μm

Available in digital and analog systems



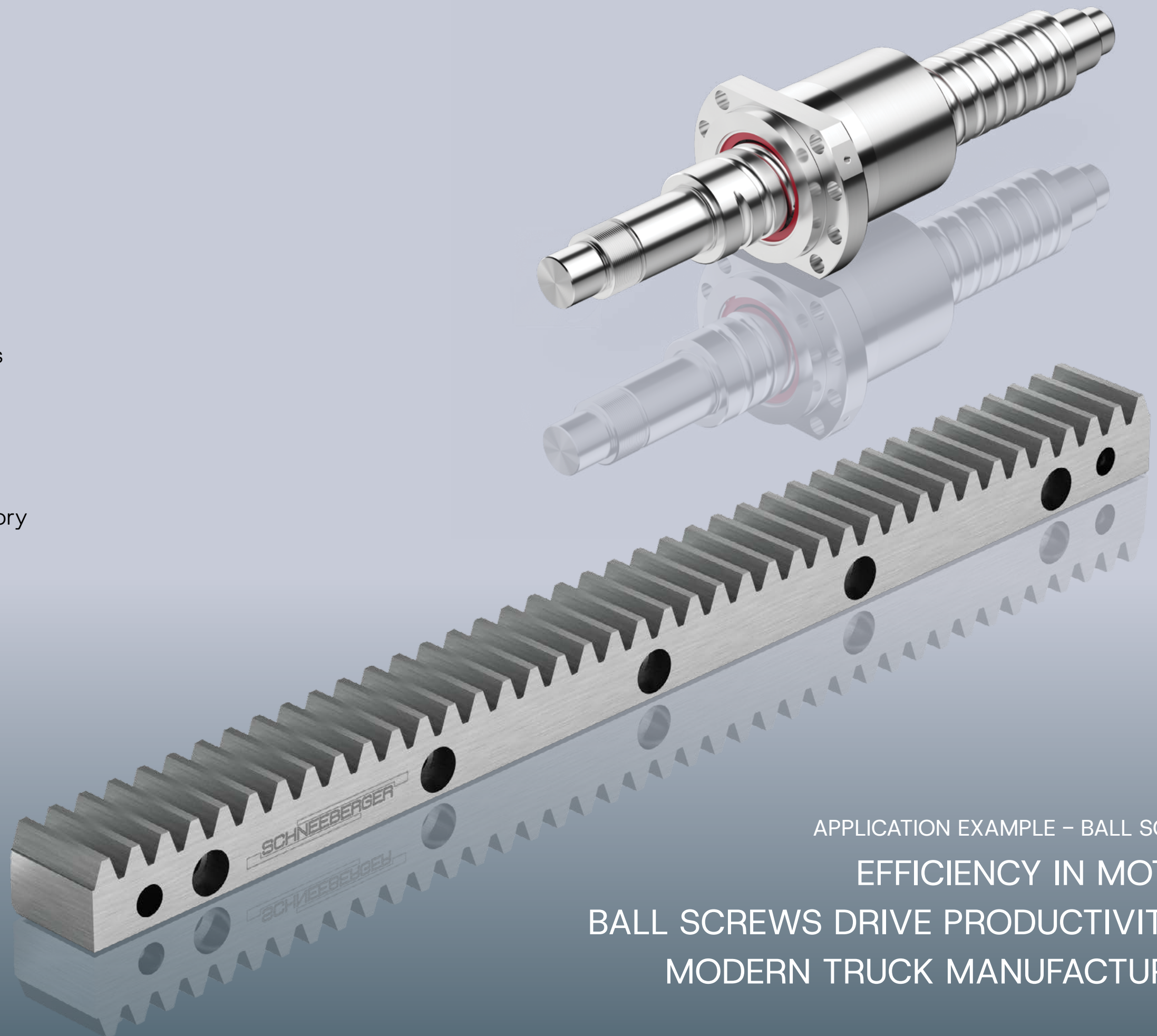
2c

DRIVE

Ball Screws
Linear and Telescope Actuators
Gear Racks

Applications / Industries

Machine tool
Dental Industry & Laboratory
Aerospace & Defense
Additive Manufacturing
Medical & Life Sciences
Energy Technology



APPLICATION EXAMPLE – BALL SCREWS
EFFICIENCY IN MOTION
BALL SCREWS DRIVE PRODUCTIVITY IN
MODERN TRUCK MANUFACTURING



PRECISION GROUND BALL SCREWS

With induction-hardened or deep-nitrided spindles and through-hardened ground nuts for exceptional wear resistance

Available with standard and customized nut designs, multiple accuracy classes, and the most efficient wipers for your applications

Also available: Linear and telescopic actuators, delivering versatile motion solutions with μ m-precise positioning



GEAR RACKS

Ideal economic drive solution

Helical or straight tooth profiles

Up to Module 16 cross sections



CUSTOMIZED GUIDEWAYS

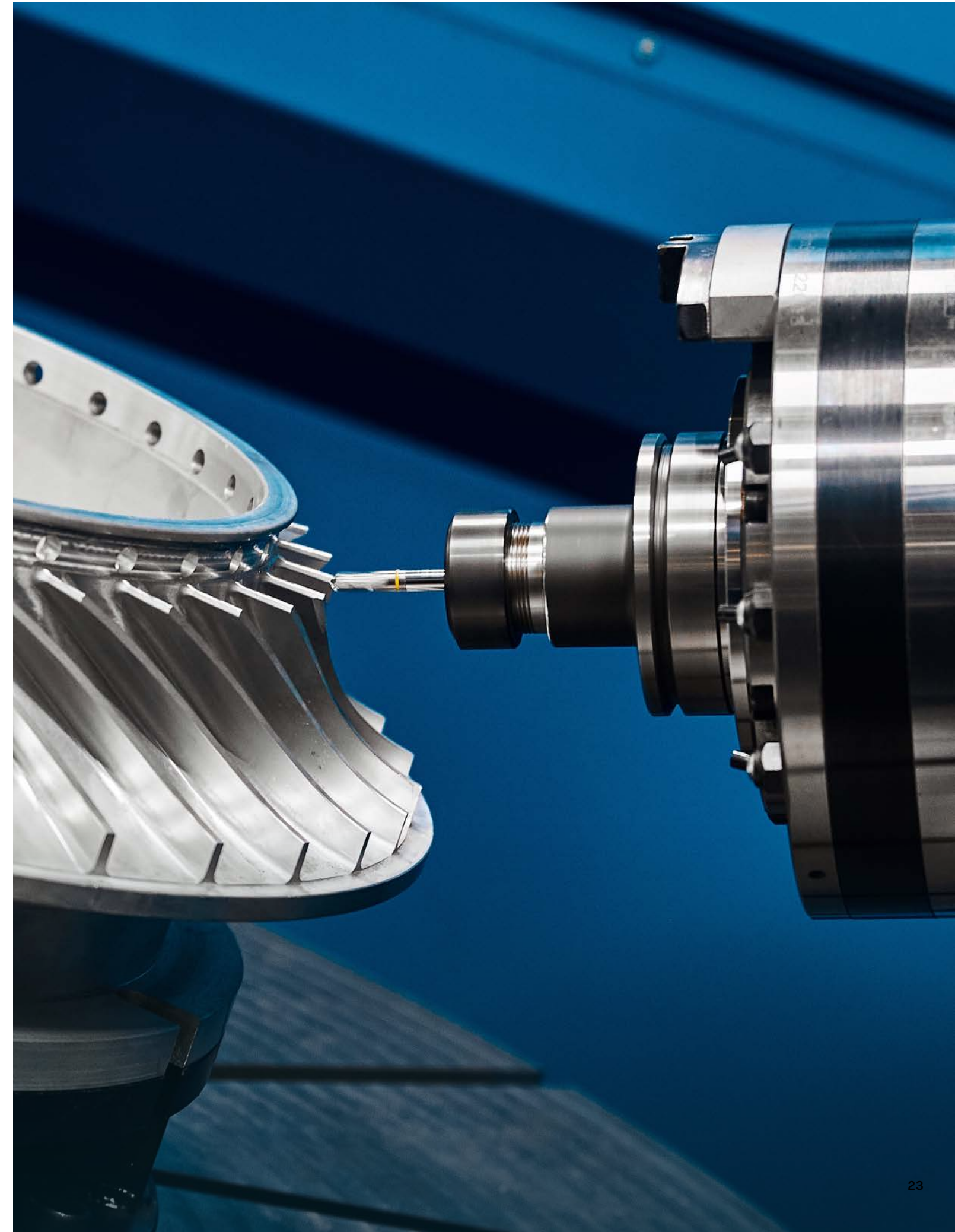
Flat or V-shaped profile options

Induction or through-hardened

Nitride hardening also available

Custom cross-section machining capability

Toothed rack in a high quality (hardened and ground)



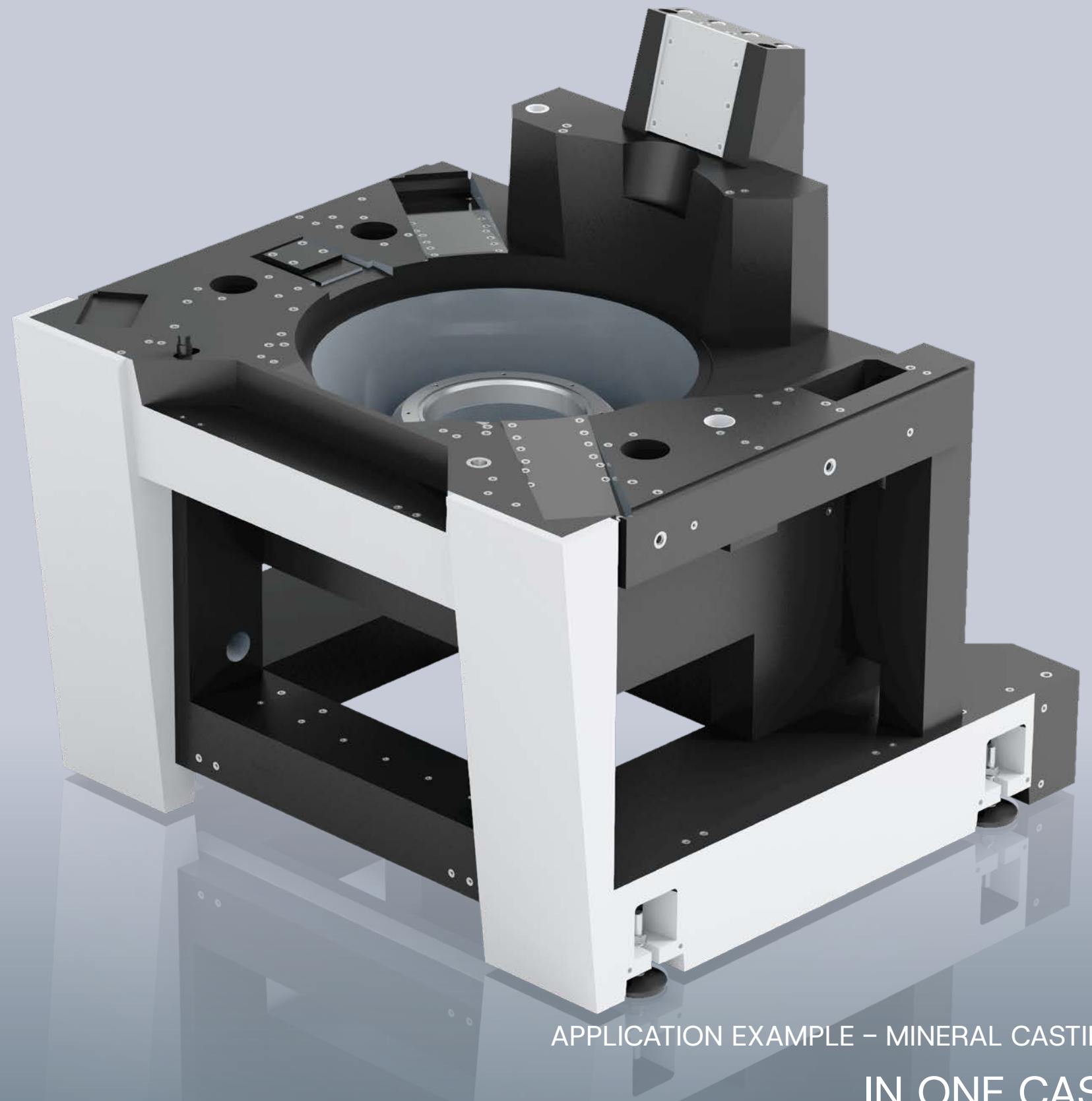
2d

MACHINE BASE

Mineral Casting
Special Applications techcon®

Applications / Industries

Machine tool
Metrology
Laser processing / Optics
Semi-Conductor & Electronic
Packaging industry



APPLICATION EXAMPLE – MINERAL CASTING
IN ONE CAST
PRECISION FOR THE OPTICS INDUSTRY
BENEFIT FOR PEOPLE



3

Production Locations



RECYCLABLE

We take back used mineral casting parts



NO HEAT ENERGY

Cold casting process



CO² REDUCTION

0.00 tons CO² emissions per 1 ton mineral casting



MINERAL-CAST MACHINE BASES

For clean environment

Solutions for Precision, Efficiency and Sustainability

MINERAL CASTING FOR OPTIMUM PERFORMANCE

Whether they are light 80 gram units or weigh in at 30 tonnes, our products offer clear benefits for our customers.

Wherever highly dynamic and ultra-precise motion is required, mineral casting is the ideal material for structural components. It offers clear technological, economic, and ecological benefits over steel, grey cast iron, or welded constructions.

FULLY ASSEMBLED SOLUTIONS FROM A SINGLE SOURCE.

Even complex machine structures and assemblies are delivered fully mounted, including guides and additional components – with precision, on schedule, and optionally with inspection certificates.

GLOBAL. CLOSE. PERSONAL.

- Production location in America, Europe, and Asia
- Technical, cultural & logistical proximity to customers
- More cost-effective than grey cast iron or welded alternatives

COST-EFFECTIVE AND EFFICIENT IN PRODUCTION

MAXIMUM PERFORMANCE – ACROSS MULTIPLE INDUSTRIES

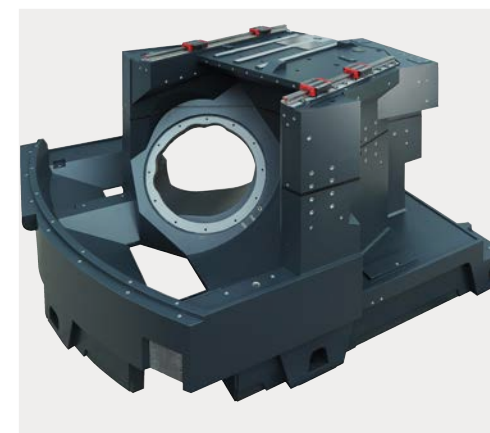
Whether using premium mineral casting or our specially developed high-performance material techcon®, our products deliver micrometer-precise tolerances and reliable performance throughout their entire lifecycle – even under continuous 24/7 operation. Techcon® was engineered as a smart, cost – efficient alternative to mineral casting – without compromising on precision, strength, or stability.

PRODUCTS

From compact to large-scale, our applications excel in industries from machine tools and packaging to optics and medical technology. Explore some highlights from different sectors. Applications cover a full range of sizes.

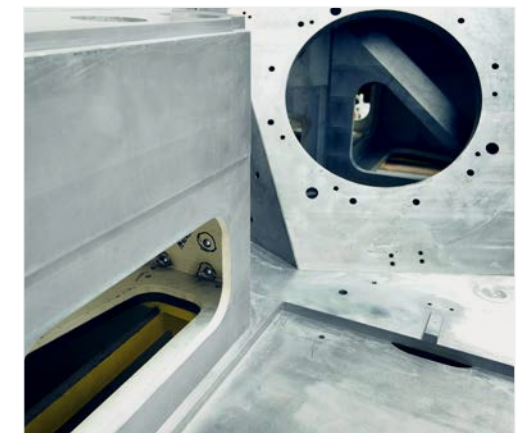
Here are a few examples from different sectors:

MACHINE TOOL INDUSTRY



Machine structure for demanding 5 axis machining

READY TO ASSEMBLE DESIGN



Up to 30% more cost-effective than grey cast iron or welded alternatives

PACKING INDUSTRY MACHINE

Structure for blister packaging machine



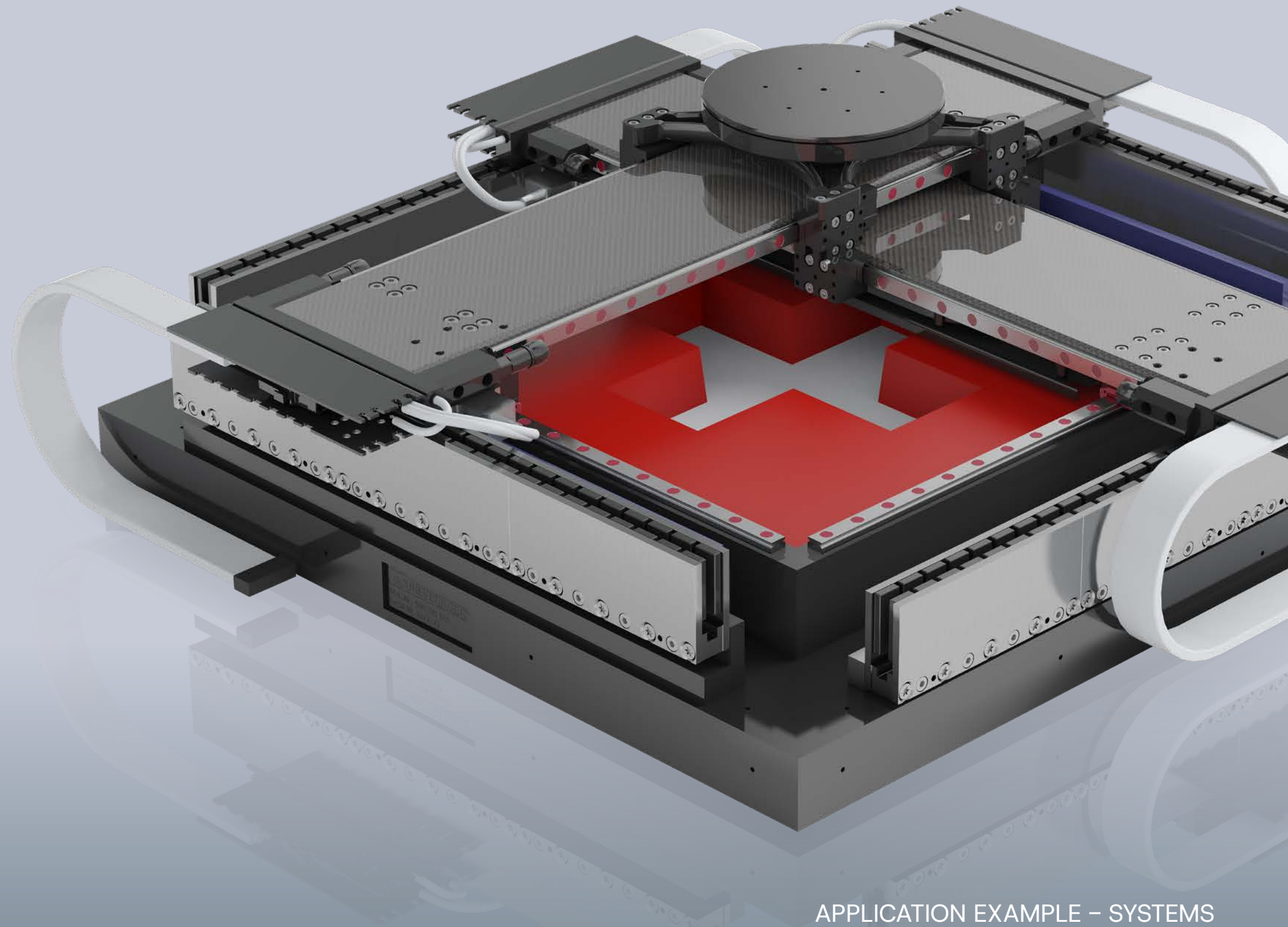
2e

SYSTEMS

Precision Positioning Systems
Motion Systems

Applications / Industries

Semi-Conductors & Electronics
Flat Panel Display
Life & Materials Sciences
Solar
Laser processing
Additive Manufacturing
Micro Machining



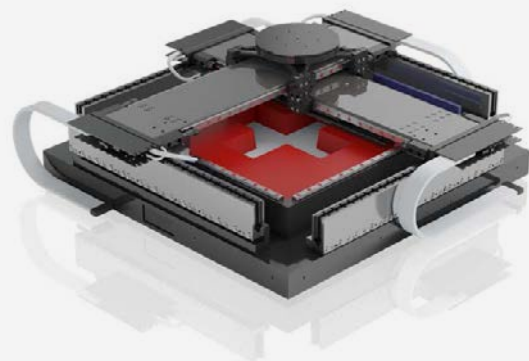
APPLICATION EXAMPLE – SYSTEMS

WAFER INSPECTION AND METROLOGY
ARE CRITICAL IN SEMI-CONDUCTOR
MANUFACTURING



3

Production Locations



Tailor-Made Motion Systems. From Concept to Serial Production.

PRECISION IN MOTION ENGINEERED FOR YOUR NEEDS

PRECISION IN MOTION CUSTOMIZED MULTI-AXIS SYSTEMS – EXPERTLY DEVELOPED AND READY FOR PRODUCTION

SCHNEEBERGER has been developing and producing customized, high-precision motion and positioning systems for over 40 years – from the first idea to full-scale serial production

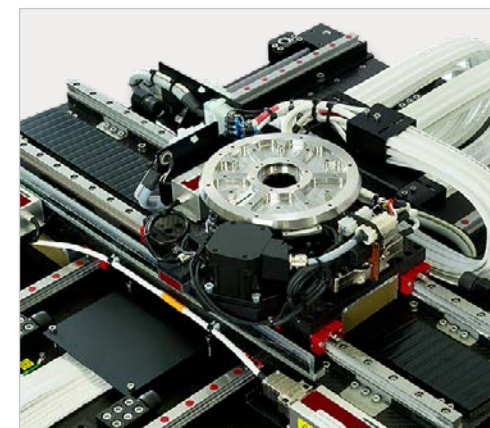
SYSTEMS AT A GLANCE

- Focus on the development and serial production of customer-specific solutions
- Differentiation through technological leadership and operational excellence
- In-depth application know-how in innovation-driven markets

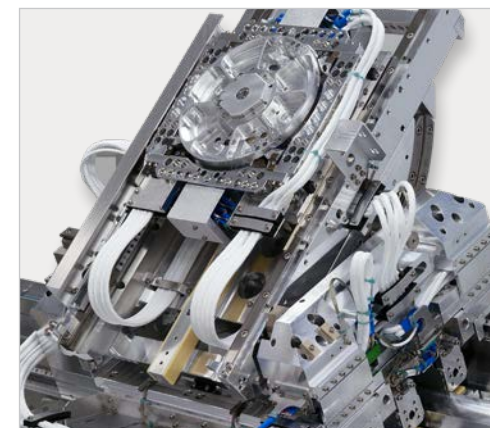
GLOBAL. CLOSE. PERSONAL.

- Development and production sites in America, Europe, and Asia
- Technical, cultural and logistical proximity to the customer

PRODUCTS – CUSTOMER-SPECIFIC SOLUTIONS



Semiconductor industry: Stage for wafer inspection and metrology



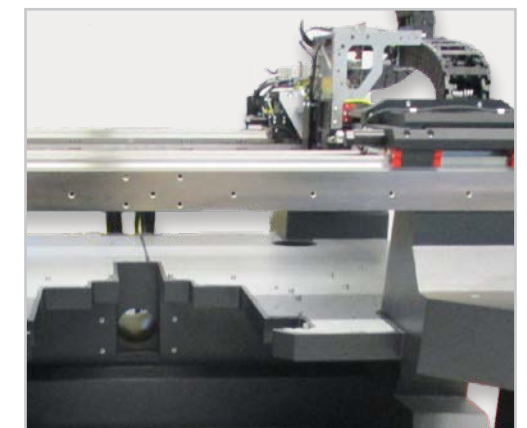
Semiconductor industry: Vacuum stage for e-beam application

INNOVATION FOR FUTURE MARKETS

- Semi-Conductor front- & back-end, including Advanced Packaging
- Materials & Life Sciences
- Laser
- Additive Manufacturing
- ...and many others

FLEXIBLE RANGE OF SERVICES

- From single axes to multi-axis systems with or without controller, all the way to complete platforms, including active vibration isolation (AVI), vacuum chamber, chuck, and other functional modules
- Normal atmosphere or vacuum
- Cleanroom-compatible



Advanced packaging: Dual Flex Gantry for hybrid bonding



Semiconductor industry: Complete wafer platform, incl. active vibration isolation and motion controller

3

ESSENTIALS FOR THE BEST

INDUSTRY EXPERTISE & APPLICATIONS

From standardized components
to complete system solutions



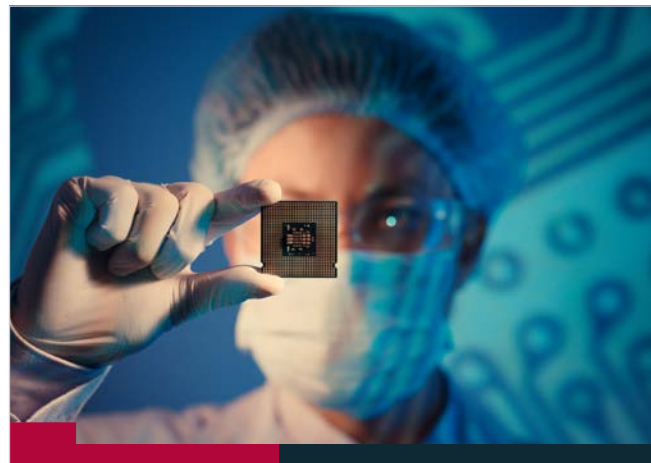
SCHNEEBERGER DELIVERS WORLDWIDE
FROM MINIATURE GUIDEWAYS TO FULLY
ASSEMBLED MACHINE STRUCTURES

INDUSTRY EXPERTISE APPLICATIONS

Whether a standard component or complete system solution, SCHNEEBERGER provides the right technology for every linear motion application. Customers around the world rely on our solutions when precision, reliability, and comprehensive engineering expertise are required.

How our products are applied in practice is shown on the application pages of this brochure. These pages illustrate how Linear Bearing, Profile Guideways, Integrated Measuring Systems, Gear Racks, Slides, Positioning Systems, Ball Screws, and Mineral Castings are combined and integrated depending on the industry and specific requirements.

Our technologies are used across all industries presented in this brochure, including medical technology, semiconductor manufacturing, machine tools, and many other demanding applications.



SEMI-CONDUCTOR & ELECTRONICS

Miniature guideways for wafer handling and assembly automation

Cleanroom-compatible components for ultra-precise motion

Ideal for semiconductor production and PCB assembly



MACHINE TOOL INDUSTRY

Ultra-precise guideways with integrated measuring systems for coordinate measuring and inspection systems

Exceptional stability and repeatability

Perfect for optical and tactile metrology



ENERGY TECHNOLOGY

Reliable linear technology for solar, wind, and energy systems

Durable components for demanding environments

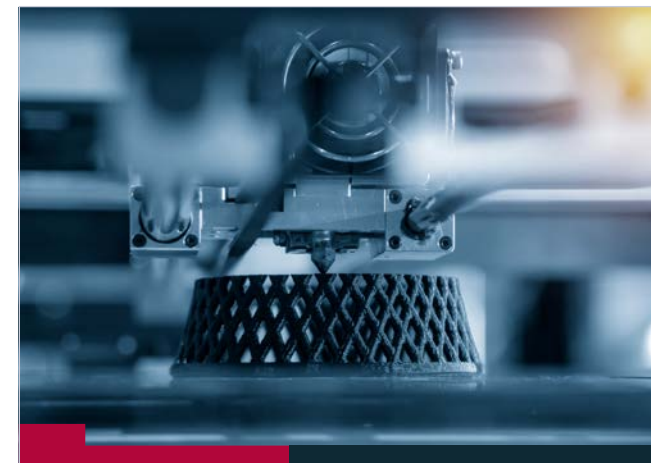
Low-maintenance systems with high availability

AEROSPACE & DEFENSE

Lightweight components and precision motion systems for critical demands

High reliability in safety-critical aerospace systems

Solutions for production, testing, and integration

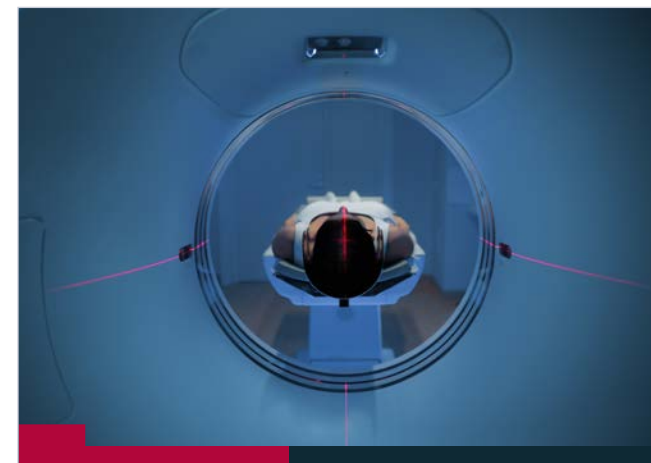


ADDITIVE MANUFACTURING

Precision motion platforms for 3D printing and additive processes

High repeatability for consistent print quality

Compatible with metal, plastic, and hybrid processes



MEDICAL & LIFE SCIENCES

Precision solutions for diagnostics, laboratory, and medical devices

Suitable for sterile and cleanroom environments

Applications in imaging, analysis, and sample handling



OPTICAL INDUSTRY

Precision guideways for optical instruments and components

Cleanroom-compatible and low-vibration performance

Used in alignment, inspection, and manufacturing processes



PACKAGING INDUSTRY

Linear and drive solutions for high-speed packaging operations

High reliability in continuous production

Ideal for filling, sealing, and labeling applications

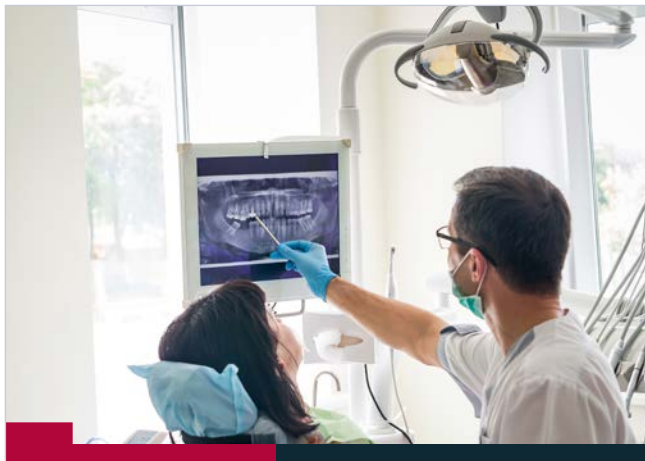


LASER PROCESSING

Motion solutions for cutting, engraving, and welding with lasers

High positioning speed and accuracy

Optimized for industrial laser applications



DENTAL INDUSTRY & LABORATORY

Compact miniature guides for dental labs and analytical instruments

High repeatability in small-scale motion

Perfect for space-limited installations



AUTOMATION / ROBOTICS

High-precision guides and positioning systems for dynamic processes

Ideal for assembly, packaging, and handling automation

Customized solutions for complex robotics applications



4

EVERYTHING FROM
A SINGLE SOURCE

QUALITY AND SUSTAINABILITY

SCHNEEBERGER CERTIFICATIONS AND DIRECTIVES:

ISO 9001 Quality Management Systems (Switzerland, USA, Germany)
ISO 50001 Energy Management Systems (Germany)
ISO 14001 Environmental Management Systems (Switzerland) ISO 13485 Medical Devices
– Quality Management Systems (USA)
ISO 27001 Information Security Management Systems Directive no. 2011/65/EU ROHS2
(Switzerland)



Worldwide Group



ESSENTIALS FOR THE BEST

PROSPECTUSES

COMPANY BROCHURE
CUSTOMIZED BEARINGS
LINEAR BEARINGS AND RECIRCULATING UNITS
MINERAL CASTING SCHNEEBERGER
MINISLIDE MSQSCALE
BALL SCREWS

MINI-X MINIRAIL / MINISCALE PLUS / MINISLIDE
MONORAIL AND AMS PROFILED LINEAR GUIDEWAYS
WITH INTEGRATED MEASURING SYSTEM
POSITIONING SYSTEMS
GEAR RACKS

www.schneeberger.com

SCHNEEBERGER



A.MANNESMANN
A member of
SCHNEEBERGER linear technology

