

Bilz[®] | Focused
on Partnership

Applications catalogue | EN

Your expert for vibration insulation and
machine installation technology

MARKET LEADER THANKS TO INDIVIDUAL SOLUTIONS

As a **specialist in anti-vibration and machine installation technology**, we have many years of experience in the development and implementation of individual solutions. We are proud to count renowned technology leaders from industry and research among those who rely on our expertise and our commitment to the **highest quality and innovation**.

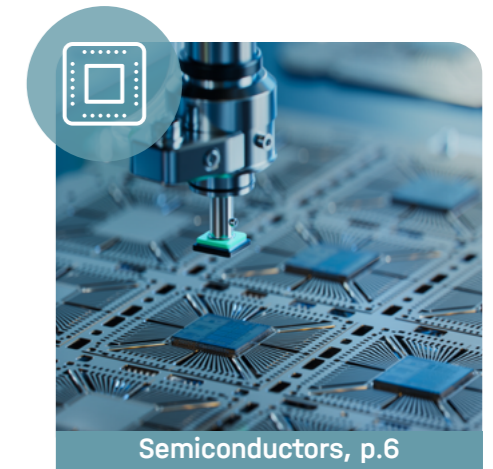
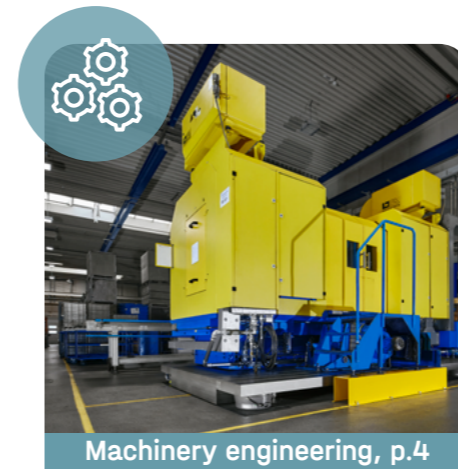
Thanks to our in depth understanding of the specific requirements of our customers we develop **individual solutions** that not only meet current but also future needs. With a **global network** and a **strong focus on partnership**, we strive to continuously exceed our customers expectations and strengthen their competitiveness.

ANTI-VIBRATION OPERATION IN INDUSTRY AND RESEARCH

The demands placed on the design and operation of modern machines and systems are constantly increasing. Today's machine generations are many times more powerful, for example in terms of processing speed or manufacturing precision. In order to achieve optimum results, it is necessary to eliminate transmitted vibrations and structure-borne noise.

- ✓ Optimal vibration isolation and machine-borne noise
- ✓ Effective protection for people, the environment and buildings
- ✓ Better quality and higher manufacturing precision
- ✓ Increased throughput due to shorter cycle times in production
- ✓ Reduced costs through easier handling of machines

SOLUTION PROVIDER FOR THESE INDUSTRIES





Machinery and plant engineering

- ✓ Pressing
- ✓ Punching
- ✓ Shears
- ✓ Machining centers
- ✓ Injection molding machines
- ✓ Robot automation
- ✓ Grinding machines
- ✓ Lathes
- ✓ Textile machines
- ✓ Special machines

EXAMPLES



Shock and vibration damping for any punching machines



Vibration damping of hydraulic deep-drawing presses



Non-slip installation of injection molding machines



Safe installation of modern tube and mandrel bending machines



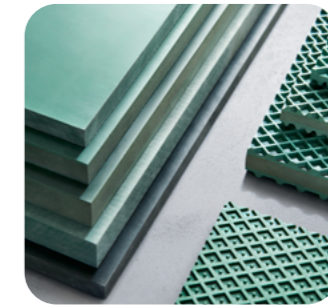
Vibration-isolated bearing of turning machines



Sound and vibration insulation for mass finishing systems

INSULATION PADS

Insulating pads, the proven economical solution from Bilz for vibration insulation and damping in many industrial sectors.



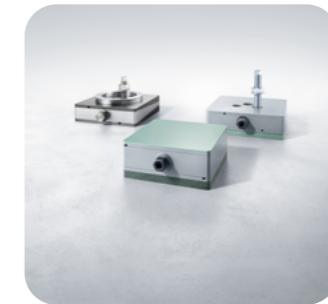
LEVELLING ELEMENTS

Levelling elements are maintenance-free machine feet for vibration-isolated machine installation. The Bilz machine feet form the perfect combination for precise level adjustment and isolation from disturbing vibrations.



PRECISION LEVELLING WEDGES

Bilz precision levelling wedges - the machine foot for the finest levelling when setting up and supporting machines, especially as an optimum vibration damper for high loads.



HORIZONTAL ELEMENTS

For machines with high horizontal forces or for lateral linking and fixing.



AIR SPRINGS

Air springs are used for highly effective vibration isolation and structure-borne sound isolation for a wide variety of machine types, optical and electronic devices, laser systems, vehicle, engine and transmission test benches. Can be optionally combined with mechanical or electronic level control systems.



We will be happy to support you in designing your system and finding a solution. You can find your sales contact at:

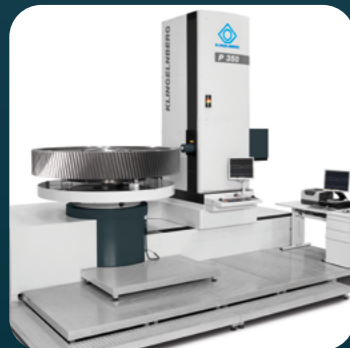




Industrial metrology

- ✓ Coordinate measuring machines
- ✓ Roughness measuring devices
- ✓ Optical measuring devices
- ✓ Scales
- ✓ Interferometers
- ✓ Measuring microscopes

EXAMPLES



Vibration isolation of specialized precision measuring centers



Ensuring the reproducibility of high-precision coordinate measuring machines



Vibration-isolated laboratory tables for tactile and non-contact measuring systems



Semiconductors

- ✓ Mask-/Waferinspektionen
- ✓ Lithography
- ✓ Flat Panel Inspektionen

EXAMPLES



Vibration decoupling for wafer transfer, -inspection and bonding machines



Vibration decoupling for 5-axis microscope systems

VIBRATION ISOLATED TABLES

Laboratory tables for the insulation of disturbing ambient vibrations when working on highly sensitive equipment. Available with hard stone or optical plate.



TABLE PLATFORMS

Vibration insulating table platforms with integrated air spring in a sturdy metal housing. Optionally available with mechanical-pneumatic level control or active control.



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ELECTRONIC LEVEL CONTROL SYSTEMS

Real-time level control for high-performance vibration insulation systems for shock-sensitive machines with high dynamics and demanding requirements for positioning accuracy and settling time.



ACTIVE VIBRATION ISOLATION

Systems for active vibration isolation with high-performance real-time control in up to 6 degrees of freedom and the highest requirements for insulation effect, settling time and level constancy.



Products

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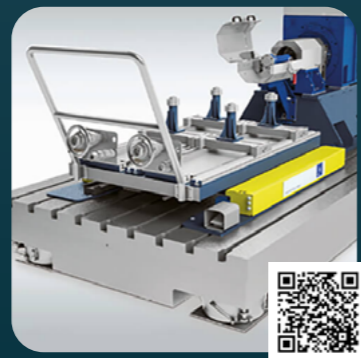
Automotive

- ✓ Transmission test benches
- ✓ Engine test benches
- ✓ Shaker
- ✓ Production robots
- ✓ Measuring robot

EXAMPLES



Vibration decoupling of precise robot welding cells



Trouble-free operation of motor test benches with over 75 % insulation efficiency



Vibration decoupling of industrial robots



Pharma/medical technology

- ✓ Picking systems
- ✓ Packaging systems
- ✓ Tablet presses

EXAMPLES



Safe installation for precise capsule filling machines



Insulation against structure-borne noise for highly automated order picking machines

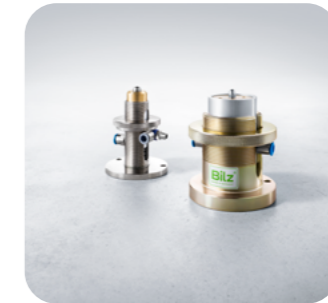
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MECHANICAL LEVEL CONTROL SYSTEMS

High-performance level control systems for air spring insulators combined with maximum level consistency.



ELECTRONIC LEVEL CONTROL SYSTEMS

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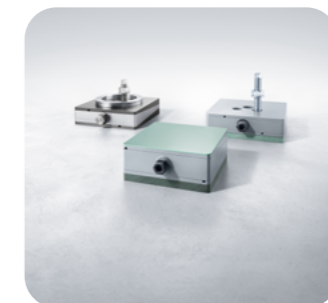
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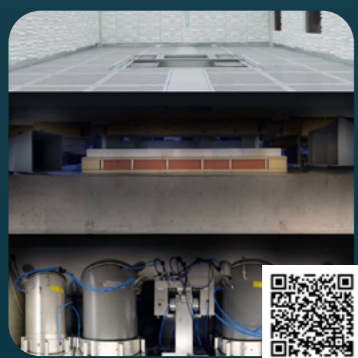




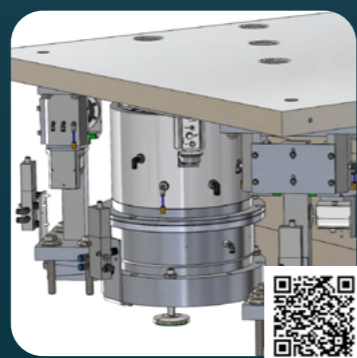
Research and laboratories

- ✓ Transmission electron microscopes
- ✓ Scanning tunnelling microscopes
- ✓ Cryostats
- ✓ AFM atomic force microscopes
- ✓ Scales

EXAMPLES



Combined sound and vibration insulation for noise-free labs



Vibration-isolated platforms as solutions for machine mounting



Active vibration isolation for scanning electron microscopes



Anti-vibration, flexible design workstations for experiments of all kinds



Flexible vibration-isolated platforms for microscopes

VIBRATION ISOLATED TABLES

Laboratory tables for the insulation of disturbing ambient vibrations when working on highly sensitive equipment. Available with hard stone or optical plate.



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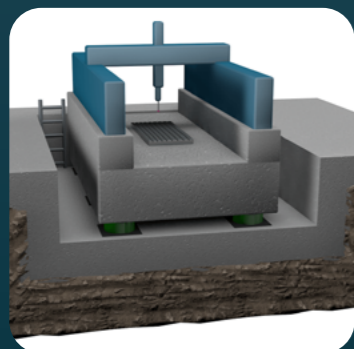




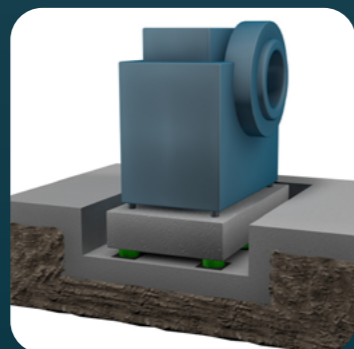
Construction/architecture

- ✓ Noise-free labs
- ✓ Refrigeration units and heat pumps
- ✓ Vibrating foundations for machines and plants
- ✓ Compressors

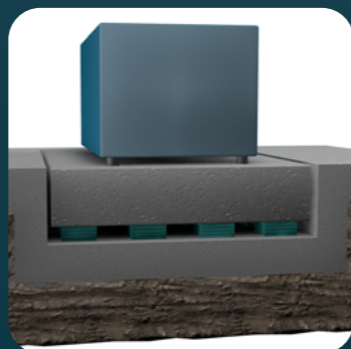
EXAMPLES



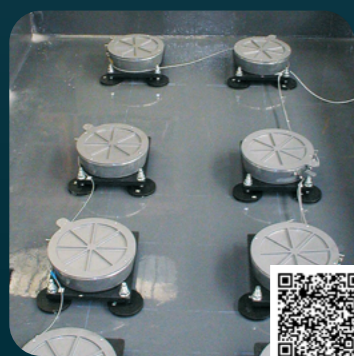
Receiver insulation with BiAir® membrane air springs and vibration foundation



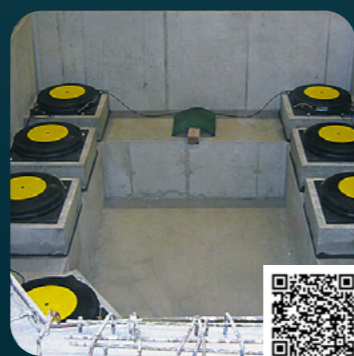
Source isolation with FAEBI® rubber air springs and vibration foundation



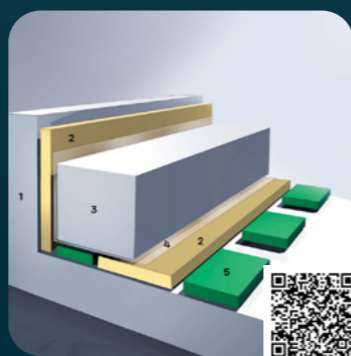
Foundation block with insulating panel sets and lost formwork



Structure-borne noise decoupling of power station heat pumps



Weather-resistant storage of ventilation systems



Vibration-isolated installation of industrial diesel generators

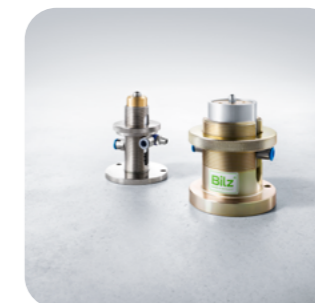
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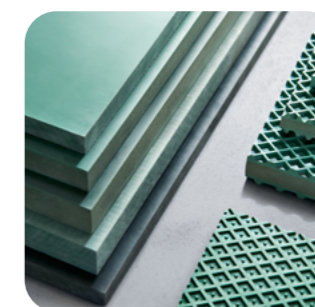
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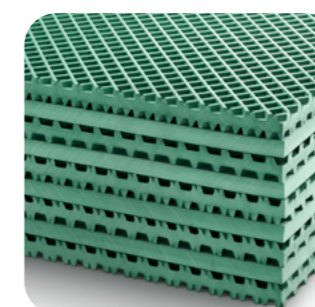
INSULATION PADS

Insulating pads, the proven economical solution from Bilz for vibration insulation and damping in many industrial sectors.



INSULATION PAD SETS

Layering of 2-6 insulation pads for effective insulation of large highly dynamic machines and sprung foundations.



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OUR SERVICES

TECHNICAL CUSTOMER SERVICE

- Commissioning
- Removal
- Maintenance
- Repair by qualified service staff



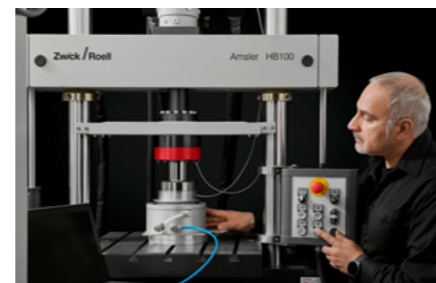
VIBRATION MEASUREMENT AND ANALYSIS

- Vibration measurement at the installation site by sales engineer
- Analysis and optimal design of the vibration isolation system



OTHER ANALYSES

- Statistical and dynamic calculations including simulation
- Formwork and reinforcement plans for oscillating foundations
- FEM analyses Shaker test bench and dynamic tensile-compression testing machine 50 kN (0-100 Hz)



HOW TO CONTACT US

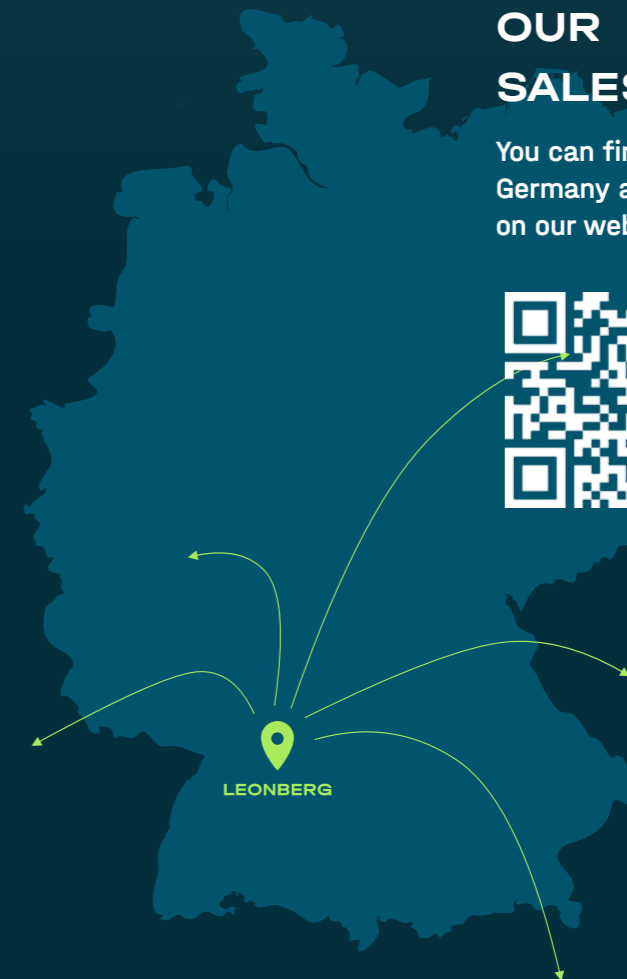
Quick help:
+49 7152 30 91-0

Contact:
info@bilz.ag

Services:
service@bilz.ag

OUR SALES PARTNERS

You can find our sales partners in Germany and around the world on our website:





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