

ENGINEERING A QUIET FUTURE



© Primus Developments

Getzner Werkstoffe

We are proud to be the leading global specialist in vibration isolation in the railway, construction and industry sectors.

Our innovative products are based on the materials we have developed in-house, such as Sylomer®, Sylodyn®, and Sylodamp®, and are complemented by elastic modules, for example, Isotop®. They effectively reduce vibrations and noise, improve application suitability, and extend the service life of the bedded components.

Getzner Werkstoffe was founded in 1969 as a subsidiary of the long-established Getzner, Mutter & Cie. and has its headquarters in Buers, Austria.

Alongside three further locations in Germany, Getzner has offices in Australia, China, France, India, Japan and the USA. Its international network is complemented by sales partners in 40 additional countries.

Today, approximately 500 employees worldwide are working on solutions for a better future.

We are a strong family-owned company that is part of Getzner, Mutter & Cie, which has a history steeped in tradition that spans over 200 years and is one of the region's largest employers.

Credibility, transparency and corporate social responsibility form our core values. We strive for economic success, but we also have a responsibility to our employees and the environment as a company. 100% of our electricity comes from renewable sources, thanks to our company-owned hydroelectric power plants and photovoltaic system. We use waste heat from our manufacturing processes for our own needs along with the local district heating system.



Getzner headquarters in Buers, Austria

We have a responsibility towards the environment



Vibrations and noise have a significant impact on people and the environment.

This is why, at Getzner, we have made it our business to develop innovative solutions for sustainable vibration protection.

We care deeply about the environment and the well-being of future generations. Not only because we are part of a traditional family business with deep roots in the region, but also because our vision of a peaceful and worthwhile future embodies a commitment to preserving the world in which we all live in. As a result, our production and

distribution processes are designed to conserve resources; we generate electricity using natural energy source and emit no harmful emissions into the environment. Our day-to-day actions in terms of our strategy and our operations are guided by the United Nations Sustainable Development Goals - (SDGs).

More information on the topic of sustainability:



www.getzner.com/sustainability

The world never stops moving



Vibrations and noise have become a constant presence in the modern world: The increasing amount of rail traffic, industry and infrastructure, urban life, and the advancement of technology all have an impact on our daily lives.

Noise can have a negative effect both to our health and the environment. Vibrations are a noticeable disturbance that have an impact and not just on people. After all, as well as the detrimental effects on our health, vibrations also cause wear to technical systems, a higher level of abrasion and shorter life cycles.

This is why Getzner has chosen to work towards a more peaceful and sustainable future. Thanks to our applications, trains travel more quietly, machines work more efficiently, and people are able to live more peacefully in their homes.

Typical conflicts of interest

- While the global expansion of rail networks in the interest of more "green mobility" is welcomed by most people for environmental reasons, few people want to live or work next to rail-way tracks.
- An extensive public transport network reduces private vehicle traffic and thus emissions in towns and cities. However, residents are well aware of the problems that arise when the underground line runs directly under their apartment building.

- The mixed-purpose use of buildings revives deserted city centres and creates urgently needed homes, but noise problems are inevitable.
- Furthermore, even environmentally friendly heat pumps not only produce climate-friendly heating but they are also responsible for sound transmission and an irritating humming noise in the building.

We have developed tailored solutions that effectively dampen vibrations, noticeably reduce noise and meet all of these challenges.

We eliminate vibrations from places where they do not belong

Vibrations are a physical quantity with which we must contend. Vibrations lead to unwanted dynamic excitation, which is transferred into structure-borne noise and can result in secondary airborne noise.

They are therefore not only noticeable at the source of disturbance, but also as vibrations and noise in secondary locations.

But, this does not have to be the case. These impacts can be reduced via suitable vibration isolation. What sets us apart as a leader in this field is our extensive research, in-house development and decades of experience.

Simply put, Getzner is required wherever the going gets tough. Our strength is in providing the necessary elasticity to ridge systems by selecting the appropriate level, process and material.

Our solutions are used in many fields including railway construction, building sector, industrial facilities and technical equipment.



Bearing of heat pumps



Urban transport



Bearing of swimming pools



Sound decoupling in modular timber construction

Allrounder Polyurethan



Polyurethane is a material like no other when it comes to developing specific chemical and physical properties.

Our Sylomer®, Sylodyn® and Sylodamp® materials, developed by us in-house, are now the mainstay of our portfolio and are used in a multitude of applications and products. Combined with metal components, they become Isotop® machine bearings.

Alongside our decades of experience, independent follow-up measurements attest to our materials' impressive performance: They are maintenance-free and last for decades, retaining their effectiveness. This is because the material's properties are derived from its structure. During the production process no softeners which are later released into the environment, are used.

All this makes them truly sustainable. Thanks to their stable properties, it is also easy to reuse our materials, for example, in the form of a granulate blending component. We are already working on developing processes to fully recycle our products, thereby playing our part in creating a future worth living in.

For more info:



www.getzner.com/products

Our materials

Sylomer®

Sylomer® is a polyurethane material, with a mixed-cell pore structure. It combines spring and damping characteristics. Our standard range is suitable for a static range of use of 0.011 N/mm² to 1.2 N/mm². Sylomer® FR is a product line that meets the most stringent fire prevention requirements for a range of uses.



Sylodyn®

Sylodyn® is a polyurethane material which has a closed cellular pore structure and therefore does not absorb water. It has distinctive spring characteristics. Sylodyn® is designed for very high loads and our standard types are suitable for a static application range of 0.075 N/mm² to 12 N/mm².



Sylo damp®

Sylo damp® is a high-damping polyurethane material that has a viscoelastic structure. This provides it with a high energy absorption capacity and effective impact insulation. The static application range is 0.005 N/mm² to 0.5 N/mm².



Isotop®

Vibration dampers from the Isotop® range are used as convenient and easy-to-install machine bearings. They combine the high vibration isolation effect of Getzner PU materials with the benefits of metal springs and elements. The elastic properties of Isotop® products can be calculated precisely, so the optimum vibration damping can be determined for each individual application.



Our solutions in the railway sector

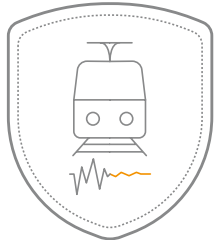


Railway networks around the world are being upgraded and expanded to provide sustainable passenger and freight transportation. This means that railway lines and urban developments are becoming increasingly congested.

Our solutions for superstructures help to efficiently reduce wear and noise. We also extend maintenance intervals and the service life of track systems. Our materials provide a precisely defined level of elasticity to the rail superstructure, improving the safety and availability of railway lines.

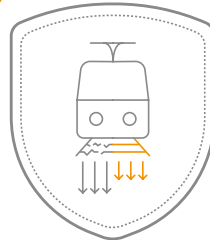
Our areas of focus:

Vibration Isolation



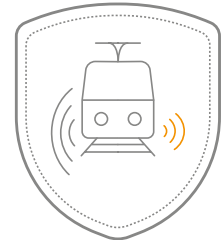
Vibration protection to reduce structure-borne and secondary airborne noise

Superstructure Protection



Superstructure protection to reduce life cycle costs and improve safety

Noise Reduction



Noise reduction for a livable environment and social harmony

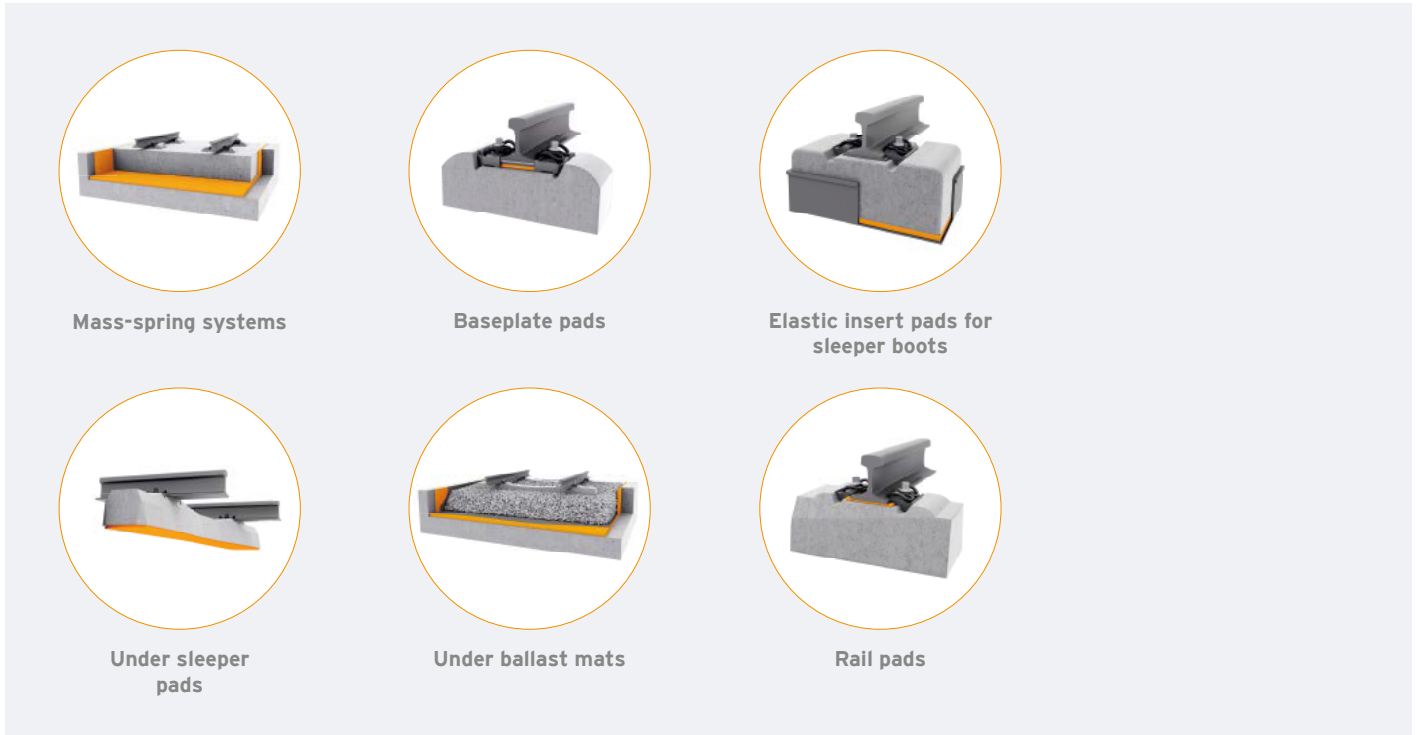
Your benefits:

- Improved residents' quality of life and working environment.
- Higher availability and longer service life of railway lines
- Lower maintenance and life cycle costs
- Increased safety and comfort



Installation of under ballast mats

Our railway portfolio



Range of use:

Urban transport

Getzner has the ideal solutions for minimising vibrations and noise in urban areas.

Local transit

Getzner's elastic solutions ensure that residents can live and work in peace.

Standard-gauge railway

A Getzner bearing with elastic components reduces maintenance on a standard-gauge railway line.

High-speed

Getzner solutions create a balance that protects the components.

Heavy freight

Getzner materials ensure lower wear in superstructure components and increase the availability of track sections subject to heavy loads.



Our applications in the construction sector



More and more people around the world are living in urban areas. In the city of the future, leisure and work merge. Infrastructure, housing and employment are all located in close proximity.

Sound and noise are becoming constant companions. At the same time, the need for rest and relaxation is increasing, and the demands for materials and comfort go far beyond the legal standards. Active noise protection, i.e. reduction of vibrations, and innovative solutions, is called for in many fields.

Our areas of focus:

Bedding of buildings

Buildings on dynamically loaded land are protected against vibrations, noise and noticeable sound.

Building acoustics

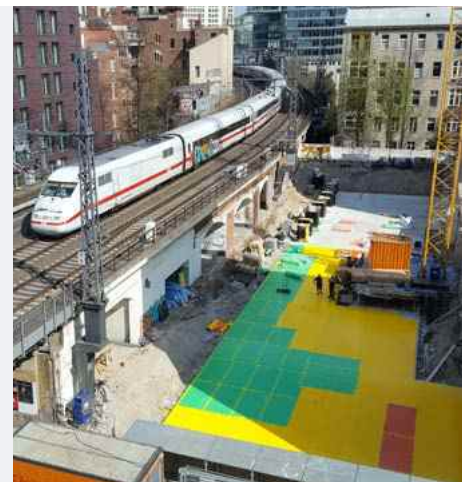
Sound control is critical in buildings. Mounting floors or internal structures on elastic bearings can prevent sound transmission.

Timber construction

The lightweight construction methods used in timber construction make noise protection a challenge. In addition to a highly-efficient floating floor, this is achieved via elastic bearing of the flanking elements.

Your benefits:

- Effective soundproofing, reduction of noise and vibrations in buildings
- Increased value through better quality of life and longer service life
- Customised service, certified quality and sustainable production



Our construction portfolio



Further product lines for the construction sector:

g-fit

is a product line designed specifically for the fitness sector. It is installed on gym floors to absorb impacts or placed under fitness equipment.

Acoustic floor mat (AFM)

is suitable to protect against impact noise in standard floors for commercial premises, industrial, residential and public buildings.

Acoustic floor block (AFB)

is used under dry and wet screeds and used for floors in recording studios, cinemas or stage construction.

Sylodyn® Construction Series

has been optimised for full-surface bearing of buildings and can be used in groundwater without any loss of performance.



© Brücker Architekten

Vibration isolation for industry



Increased comfort, quieter equipment and lower life cycle costs - thanks to our solutions for vibration isolation in industry.

Customised solutions are available for numerous applications. Our Isotop® vibration dampers are used as bearing elements for a wide range of devices.

Our areas of focus:

Heat pumps

Long-term noise is reduced by mounting the compressor within the device as well as the entire heat pump on an elastic bearing.

Heating, ventilating and air conditioning systems and chillers

Decoupling systems from the building is particularly important for roof-top installations.

Machine engineering

The right vibration dampers deliver greater productivity and faster running speeds for production machines.

Your benefits:

- Quieter equipment thanks to efficient vibration isolation
- Improved comfort in adjacent areas of buildings, trains and ships
- Time and cost savings during design, procurement and installation
- Reduced secondary airborne noise, even in critical installation locations (roof-top installation, mezzanine floors, etc.)
- Reduced maintenance costs
- Greater precision and functionality



Elastic bearing of HVAC equipment with Isotop®

Our industry portfolio



Bearing of heat pumps

Bearing of compressors

Bearing of HVAC systems

Bearing of chillers

Floating floors in rail cars and ships

Cogeneration plant bearing

Machine bearings

Further areas of use:

Rail vehicle manufacturing

The bedding of the floor or installation elements improves rail passengers' comfort.

Impact insulation

Our Sylodamp® product line has been specially developed for impact insulation, enabling optimum protection of sensitive electronics for example.

3D mould parts

Our Sylocraft® product line has been specifically developed for application with small components with complex 3D geometries.



Floating floors in rail cars in passenger trains

First-class service



We aim to develop individual solutions for vibration engineering challenges by working together with our customers. We have experts in the fields of physics, the building and construction industry, machine engineering, acoustics, plastics engineering, chemistry and production and process engineering. In conjunction with our network of partners, we offer a wide range of services:

Comparative measurements

Our specialists carry out measurements before and after installation.

Calculation and efficacy forecasts

We draw upon sound calculation models to simulate the effectiveness of the vibration protection before installation.

Preparation of installation plans

A detailed installation plan will be produced on request.

Instruction and installation services, and on-site acceptance of installation work

Our specialists attend your premises in person.

Materials and system testing

At the customer's request, for the purpose of research and quality assurance, we carry out measurements and tests, including on our own large-scale test rigs.

Customer-specific solutions

Different requirements call for individual vibration protection.

Discover our calculation tools

With our online calculation and selection tools, you can quickly and easily find the right solution for you.

Our calculation tools are free to use following a simple registration process at apps.getzner.com.

If you have any questions, please do not hesitate to get in touch with your Getzner contact partner.



FreqCalc

calculates the effectiveness of the vibrations and the behaviour of our elastic solutions.



EquipCalc

Finds the right machine bearing at the press of a button.



TimberCalc

Determines the right material for your timber construction project.



For more info:



www.getzner.com/calculation-tools



Developed
and produced
at the heart
of Europe

Want to learn more about Getzner?

Visit www.getzner.com to view our products and services. In the Downloads section you will find numerous case studies, data sheets, tender documents and other useful information.

Go to the Downloads area:




www.getzner.com/downloads

We are the leading specialist in vibration protection and ...

 ...reducing vibrations

 ...lowering noise levels

 ...reducing maintenance and service requirements

 ...extending the service life of bedded components

We look forward to hearing from you.

Getzner Werkstoffe GmbH

Herrenau 5

6706 Bürs, Austria

T +43-5552-201-0

info.buers@getzner.com