MACHINE BEARINGS

THE PERFECT
ISOTOP® PRODUCT
FOR EVERY
APPLICATION.

PRODUCT CATALOGUE 2025

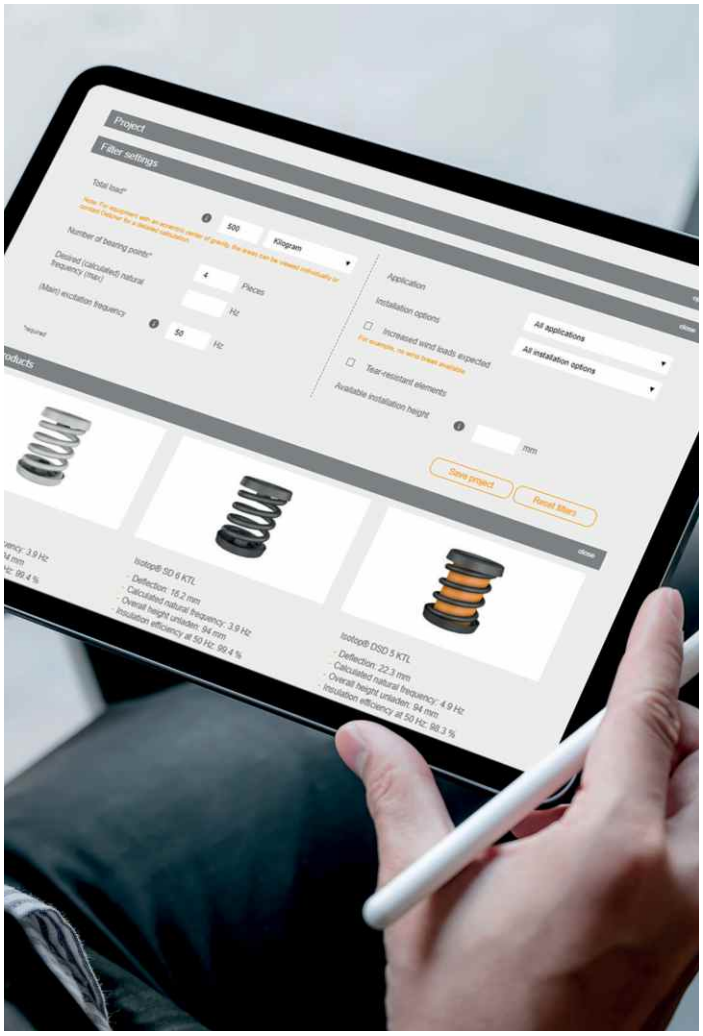
by getzner isotop®

OVERVIEW

EQUIPCALC

EquipCalc, the online selection program, makes finding the right Isotop® product even easier.

A suggested product, together with a number of alternatives, is selected using data such as the weight of the bedded item and the number of bearings. The EquipCalc Module Planner enables systems consisting of a number of elements with up to two layers to be modelled and calculated.



We can also help customers with complex system requirements. Our service portfolio includes:

- Calculations
- Efficacy forecasts
- Customer-specific solutions

Register now and try out

apps.getzner.com

Heat pumps

Compressors

Air handling units

Fans

Chillers

Machinery/conveyor systems

Combined heat and power plants/generators

Pumps

Pipes

Lift systems

Transformers

Medical technology

getzner.com/hvac

STEEL SPRINGS

Using steel springs as vibration-isolating elements brings many advantages, which can significantly improve both the performance and reliability of isolated devices. Due to their low natural frequency, steel springs have excellent isolation properties and are particularly suitable for machines such as fans or ventilators that exhibit low-frequency disturbing frequencies.

Rotating machine parts cause vibrations, which result in vertical loads. This is why we use specially developed steel springs that are particularly suitable for machines operating at low motor speeds.

Damping characteristics

Steel springs have a low natural frequency, making them ideal for applications that generate low-frequency noise, as well as for the effective decoupling of fans.

Load range

To ensure effective decoupling, the design of the steel springs must be correct. Too large a deflection must be avoided, as otherwise the springs will jam. If the windings touch, the connection becomes rigid and creates a sound bridge. Tensile forces or even horizontal forces should be avoided when using steel springs, therefore solutions that consist of just steel springs is not recommended in windy locations.

Range of use

Steel springs were designed to damp vibrations and to absorb shocks in a vertical direction. They are widely used in the automotive industry, in machine engineering and in the construction industry.

PRODUCT BENEFITS

Available in two different sizes, Isotop® MSN and Isotop® SD cover a load range from 3 kg to 2,101 kg. As well as individual springs, they can also be used as block elements. Sylomer® is also used with the block elements and the Isotop® FP/K footplate as an anti-slip mat and effectively dampens the resonance frequency of the steel spring. In addition, Isotop® FP/K can also be used to fasten a single steel spring to the foundation.

Isotop® SD

Isotop® MSN

Isotop® SD-BL

Isotop® MSN-BL

Quality made by Getzner

By employing the highest-quality materials, precise production techniques and a sophisticated product design, we ensure that the compression springs are tailored perfectly to the respective load requirements. The springs are characterised by their durability and high resistance to environmental conditions, making them ideal for use in challenging environments.

Overall height

Both Isotop® MSN and Isotop® SD have the same overall height within the product family:

- Isotop® MSN 57 mm
- Isotop® SD 94 mm

This enables rapid adjustments to be made when the load profile changes. The installation space itself does not have to be altered – a significant advantage both during the product development process and during on-site installation.

Block elements

Isotop® BL block elements extend the load range of the individual steel springs by bringing together a number of springs at a single bearing point. They can be easily adjusted and configured according to the specific needs of the customer. Different types are available as standard.

getzner.com/spring-mounts

BENEFITS

- Excellent isolation properties due to their low natural frequencies.
- Ideal for applications with low excitation frequencies in industrial environments.
- The standard overall height across the product family offers advantages during installation and reduces the workload when reconfiguring systems.

STEEL SPRINGS WITH DAMPER CORES

Steel springs with a damper core are special spring elements designed to combine the properties of springs with the benefits of the internal damper core. This combination enables dynamic loads to be absorbed effectively and unwanted vibrations to be reduced.

Steel springs with damper cores are widely used in various industrial sectors. The damper core helps to improve overall performance. Excitations are absorbed effectively to dampen the overall system.

Combined properties

As they absorb and store mechanical energy, steel springs offer excellent damping characteristics. The integrated damper core – frequently made from viscoelastic materials – ensures that some of this energy is converted into heat, effectively damping vibrations and shocks. This combination results in optimal vibration isolation, with shock pulse damping at the same time.

Improved stability and control

The integrated damper core not only dampens any vibrations, it also stabilises the spring itself. The spring moves in a more controlled and uniform manner, minimising lateral vibrations and unwanted movements. This results in improved stability and control in the application, thus increasing the reliability and performance of the entire spring-damper unit.

Reduced maintenance costs

Steel springs with damper cores are very effective in reducing shocks and shock pulses, preventing them from affecting the machine or device. When energy is absorbed efficiently, the load on the various components is reduced, extending the service life of the devices. Maintenance intervals can usually be extended accordingly.

PRODUCT BENEFITS

We have extensive experience in the manufacture of polyurethane (PU) and springs. As a result, our products boast outstanding performance and long-term reliability. The specific benefits of PU compared with conventional elastomers, such as its high load capacity and long service life, make a significant contribution to the quality of our products.

Isotop® DSD

Isotop® DMSN

Isotop® DSD-BL

Isotop® DMSN-BL

Design and quality assurance

Having PU products and springs made by the same company guarantees the seamless design and harmonisation of the individual components. This ensures that the products are of the highest quality, which leads to improved performance and a longer service life.

Long-term reliability

Steel springs are well known for their strength and durability. They are able to resist repeated load cycles and retain their mechanical properties over long periods of time. The integrated polyurethane damper cores makes them even more robust. Our PU products will retain their damping characteristics for decades into the future, even after repeated use. This combination makes steel springs with damper cores particularly suitable for applications that demand a consistently reliable performance, even under challenging conditions.

Overall height

Like the steel springs, both the Isotop® DMSN and Isotop® DSD have the same overall height across the product family. This has advantages both during the product development process and during on-site installation.

- Isotop® DMSN 57 mm
- Isotop® DSD 94 mm

getzner.com/spring-mounts-dampercore

BENEFITS

- The combination of steel springs and damper cores enables mechanical energy to be absorbed effectively, while simultaneously reducing vibrations.
- The kinetic energy is converted by the damper core, leading to improved shock pulse damping.
- The damper core's durable properties ensure consistent performance over long periods of time.

VIBRATION DAMPERS

Vibration dampers help machines and devices operate more quietly and efficiently. Without effective vibration dampers, vibrations will cause unpleasant noise disturbance and potential damage to the structure of the building. Vibration dampers absorb these vibrations and prevent them from being transferred to the building, extending the service life of the device and increasing comfort levels in living and working areas.

High-quality vibration dampers combine low natural frequencies with excellent stability. In applications such as the internal decoupling of compressors in heat pumps, the pipework is protected and any vibrations are decoupled. The following properties are particularly important.

Low natural frequency

Vibration dampers must be able to effectively isolate a broad range of frequencies. Having a low natural frequency is the best way to achieve this. Note that the ratio of excitation frequency to natural frequency should be greater than 1.41. Only then will both low and high frequencies, as well as every type of vibration, be minimised. In the case of a heat pump, for example, vibrations are perceived as airborne noise.

Durability

To ensure uninterrupted operation, the dampers must be durable and resistant to wear and environmental conditions. Of particular relevance here is the choice of material, which should be resistant to temperature fluctuations, moisture and chemical effects. This will ensure that the vibration dampers perform reliably well into the future.

Easy to install

The quick and easy installation of the dampers reduces overall costs and the amount of time spent on their installation and maintenance. These are important aspects for installers and maintenance engineers, since straightforward handling results in faster commissioning and shorter downtimes.

PRODUCT BENEFITS

Isotop® MSN-DAMP, Isotop® Compact and Sylomer®/ Sylodyn® Compressor Grommet (pro) are highly effective polyurethane vibration dampers that were specially developed to meet heat pump requirements. They are the product of choice for manufacturers whenever both primary and secondary airborne noise have to be effectively reduced. The internal components, such as the compressor, have elastic bearings. These dampers are also widely used in other devices in which vibration isolation and noise reduction are important.

Isotop® MSN-DAMP

Isotop® Compact

Sylomer®/Sylodyn® Compressor Grommet pro

Sylomer® Compressor Grommet

Superior material quality and durability

Isotop® MSN-DAMP, Isotop® Compact and Sylomer®/ Sylodyn® Compressor Grommet (pro) are made from high-quality PU materials. These materials provide exceptional durability and resistance to environmental conditions. Our vibration dampers retain their effectiveness over the entire service life of the bedded device, even in challenging situations.

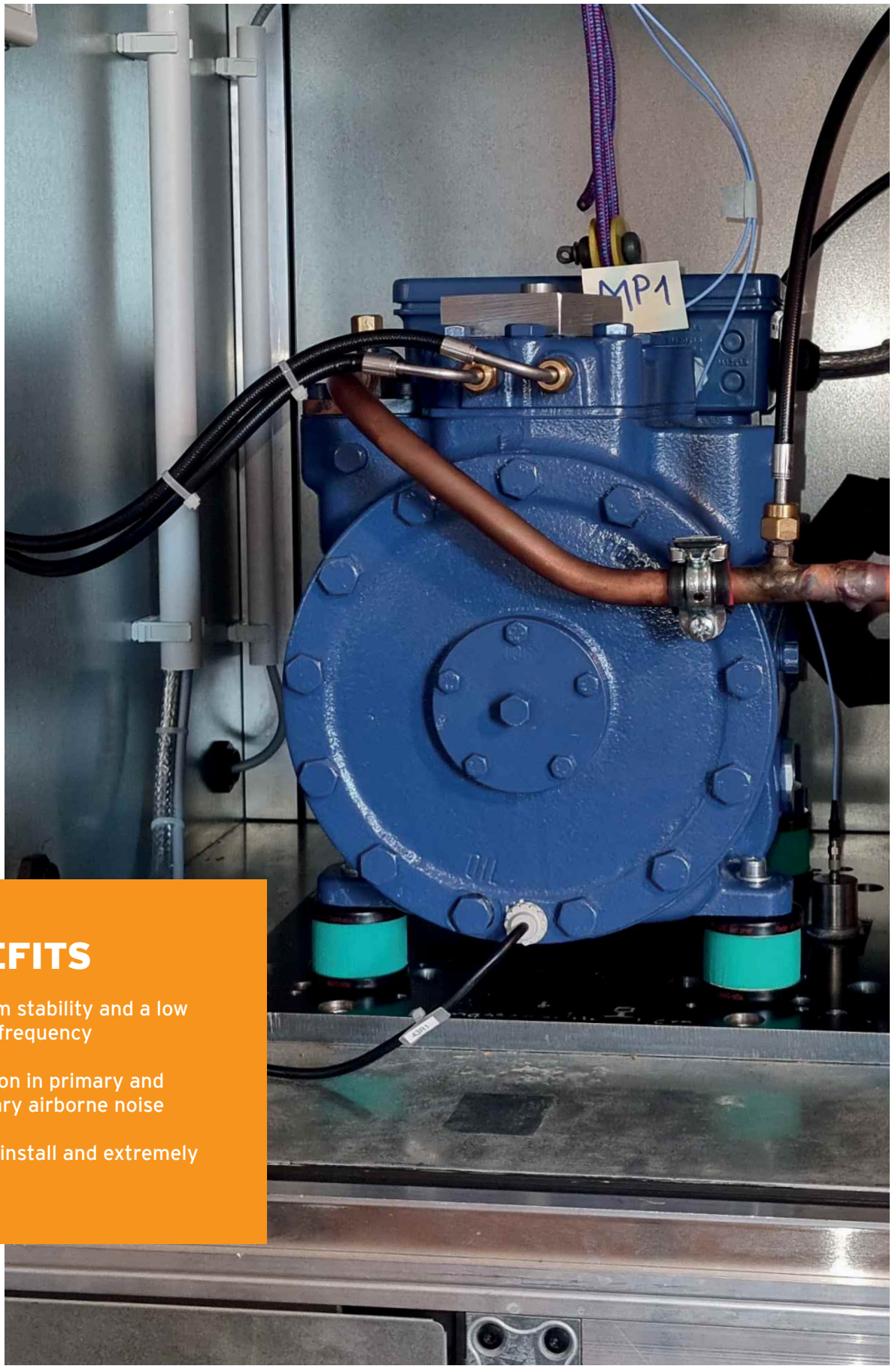
User-friendly design

During the development of the vibration dampers, we placed a great deal of importance on ensuring that they are quick and easy to install. This greatly reduces installation time and costs and makes maintenance much more straightforward. Customers can be confident that their heat pumps will be operational in no time at all and work reliably for many years to come.

Optimum adaptability and configurability

We offer a broad portfolio of standard products with a choice of connection options that covers most application situations. In addition, the dampers can be customised to ensure they satisfy the individual requirements of an application.

getzner.com/ vibration-damper



BENEFITS

- Optimum stability and a low natural frequency
- Reduction in primary and secondary airborne noise
- Easy to install and extremely durable

CEILING HANGERS

Ceiling hangers are special products used to suspend various components in building services equipment systems. They provide a robust and secure attachment for pipework, ventilation ducts and other ceiling-mounted components.

Various versions and materials are available on the market to meet the specific requirements of the installation and provide a reliable support for an extended period of time. Ceiling hangers must be able to satisfy the following minimum requirements.

High load-bearing capacity and stability

Ceiling hangers must be robust and stable enough to safely support the weight of suspended fittings such as pipework, ventilation ducts and lighting systems. They must also resist the additional loading caused by movements or vibrations without adversely affecting the safety and functionality of the system as a whole.

Easy and flexible installation

The fixtures are designed to be installed quickly and easily. What is important is that the ceiling hangers are flexible and can be fitted to different types of ceiling without any difficulty. They must also be able to be adapted to various installation configurations to fulfil the requirements of the many different types of building project.

Vibration isolation

To minimise the transmission of noise and vibration, ceiling hangers must have effective vibration isolation properties. There is no other way of protecting the building structure from vibrations and its users from secondary airborne noise. This increases comfort levels in buildings and increases the service life of the installations.

PRODUCT BENEFITS

Our Isotop® SD/Z, Isotop® MSN/Z and Isotop® MSN/Z-LC products are three superb ceiling hanger solutions that are ideal for building services equipment. During their development, close attention was paid to customer benefits, performance and handling. The SD/Z and MSN/Z series provide the highest levels of performance; also available is the MSN/Z-LC series, which offers a practical alternative for specific attachments.

Isotop® SD/Z

Isotop® MSN/Z

Isotop® MSN/Z-LC

A single installation point

Our Isotop® SD/Z, Isotop® MSN/Z and Isotop® MSN/Z-LC series are characterised by their use of a single attachment point. This innovative design significantly reduces the amount of installation work and minimises the risk of fastening errors, resulting in a much simpler installation process and ensuring a reliable and secure attachment.

Proven steel springs

Our ceiling hangers use the proven Isotop® SD and Isotop® MSN steel springs; these have a low natural frequency and provide effective vibration damping. The identical design of the steel springs and ceiling hangers makes life much easier for the customer.

Robust version with high stiffness

Ceiling hangers from the Isotop® SD/Z and Isotop® MSN/Z series high-strength housings that increase the stiffness and ensure that the springs are fully effective. This prevents the unwanted effects caused when the housing is not sufficiently rigid and guarantees precise vibration damping.

getzner.com/ceiling-hangers

BENEFITS

- High load-bearing capacity and stability
- Simple and flexible installation using a single attachment point
- Effective vibration isolation using proven steel springs

PRESSURE-TENSION ELEMENTS

Pressure-tension elements are special components developed to absorb both pressure and tensile forces. They are used in a wide range of applications involving both dynamic and static loads, and are used in many sectors, such as machine engineering and the building and construction industry.

Pressure-tension elements are made from high-strength materials such as steel, aluminium or specialised composite materials. These materials have a high load-bearing capacity and ensure a long service life. Elastomers are used as the isolating layer to provide effective vibration isolation and shock damping.

High load capacity

Pressure-tension elements are designed to withstand both high pressures and high tensile forces. The ability to withstand such forces is essential for the safety and stability of machinery.

Differing requirements

A variety of requirements exist with respect to the pressures and tensile forces that are encountered, which means different materials have to be employed. An effective material mix will strike the right balance between the vibration damping of high amplitudes as well as the best possible vibration isolation.

Versatile

Thanks to their design, pressure-tension elements can be used in a wide variety of applications. They are ideal in situations where lifting forces occur, such as with variable-speed motors, wind loads, lateral acceleration or when pumps start up. These elements ensure the reliable performance of the machines and systems in which they are installed.

PRODUCT BENEFITS

Isotop® DZE is used in various industrial sectors, including machine engineering, the building and construction industry, transport and plant engineering. Its sophisticated design and superior properties make it the perfect choice for projects with stringent requirements in terms of load capacity, vibration damping and reliability.

Isotop® DZE 3D

Isotop® DZE 2

Isotop® DZE 1

Isotop® DZE Mini

Effective vibration damping in all spatial directions

The brand new Isotop® DZE 3D offers a ground-breaking solution for the effective damping of vibrations in all spatial directions. Its patented chamber technology makes the Isotop® DZE 3D not only extremely robust, it also successfully satisfies the strict requirements for a seismic machine bearing, as demonstrated by an independent testing institute.

Effective damping of shocks and isolating of vibrations

One of the outstanding features of our Isotop® DZE products is their ability to effectively dampen the shocks and isolate the vibrations that are transmitted into the structure of a building. This is achieved using an innovative combination of Sylodamp®, Sylomer® and Sylodyn® PU materials. Combining these materials intelligently enables both short-term shock loadings and continuously occurring vibrations to be effectively isolated.

Durable and maintenance-free

Employing high-quality materials and precise manufacturing methods gives our Isotop® DZE products their durable and maintenance-free properties. They also result in much lower operating costs, a longer service life for the bedded devices, and maximise system availability.

getzner.com/
pressure-tension-elements

BENEFITS

- Effective vibration damping and isolation of vibrations
- High degree of stability
- Versatile application options

SANDWICH ELEMENTS

Sandwich elements are innovative vibration isolators characterised by their high stability and low weight. They typically consist of a pressure distribution plate and an isolating layer. The pressure distribution plates in sandwich elements are mainly produced from strong materials like steel to distribute the load evenly. The isolating layer is often made from lightweight materials such as polyurethane foam.

The pressure distribution plate allows the sandwich elements to be used with various frame sizes. All that needs to be considered is the weight exerted on the respective bearing point.

High stiffness

Even though they are very light, sandwich elements offer structural strength paired with excellent isolation properties. This is achieved by a unique combination of rigid pressure distribution plates and lightweight isolating layers. Sandwich elements are ideal for applications in which weight-saving and high load capacities are demanded.

Excellent isolating properties

The PU foams used as the isolating layer account for the outstanding acoustic isolating properties of the sandwich elements. They are therefore ideally suited for applications in buildings in which sound control is important.

Easy to install and maintain

Sandwich elements are easy to handle and install owing to their light weight and construction method, which considerably reduces installation time and costs. Generally speaking, sandwich elements are also low maintenance, resulting in a further reduction in operating costs.

PRODUCT BENEFITS

Our Isotop® SE product family covers a number of different types, each of which is optimised for specific ranges of use and requirements.

Isotop® SE pro

Isotop® SE light

Isotop® SE-DE

Isotop® SE-DE Elevator

Straightforward design

Our Isotop® SE family offers excellent vibration damping to protect sensitive devices and structures. The load on the bearing is distributed evenly thanks to the integrated pressure distribution plate, simplifying both the design and installation process, while also reducing the planning workload and minimising the risk of installation errors. The individual types are differentiated by their different colours, making their correct installation a very simple matter.

Versatile application options

Isotop® SE products are designed for use in industrial applications, in machine engineering, and in the building and construction industry, where high performance requirements exist. Their light weight makes Isotop® SE pro and Isotop® SE light extremely easy to transport and install.

Broad frequency spectrum

The Isotop® SE-DE and Isotop® SE-DE Elevator product types use two different types of elastomer layer to create a single product that combines optimised damping with vibration isolation in a single component. This enables them to be used across a broad frequency spectrum, which makes the product types perfect for a wide variety of applications. Isotop® SE-DE Elevator meets the requirements of category EL-3 as per DIN 8989 (VDI2566). The sandwich elements also have an anti-slip layer made from Sylomer®.

getzner.com/sandwich-pads

BENEFITS

- High structural strength despite light weight due to a combination of rigid pressure distribution plates and lightweight isolating layers.
- Exceptional acoustic insulation properties – ideal for applications where sound control is important.
- Easy to install, low maintenance requirements and hence lower operating costs.

MACHINE MOUNTINGS

Machine mountings are required for installing and operating machines and systems. Their main function is to level out and stabilise the machines. Precise levelling ensures that the machine is stable and in the correct position, which is essential for smooth and efficient operation. Stable machine mountings also help to keep the machine securely in position, which prevents accidents and damage.

In many instances, elastic machine mountings make a lot of sense. They combine the advantages of a machine mounting with an elastic layer and are able to absorb vibrations very effectively. This results in quieter machine operation, as the transmitted vibrations are reduced. The elastic bearing of the machine mountings enables both machine performance to be optimised and increases comfort and safety in the workplace. The properties listed below should be taken into account.

Height-adjustable

Precise levelling of the machine is often necessary to ensure its proper operation. Height-adjustable machine mountings allow the height of the machine to be adjusted very easily, which is particularly useful if the floor is uneven.

Load capacity

The machine mountings must be able to reliably bear the weight of the machine and absorb any dynamic loads. The maximum load-bearing capacity should therefore always be chosen according to the total loading of the machine.

Damping characteristics

The ability to dampen vibrations and oscillations is the key factor that will extend the service life of the machine and reduce noise levels. Elastic machine mountings made from special materials such as polyurethane can be particularly effective in these situations.

PRODUCT BENEFITS

Our Isotop® ENI machine mountings contain a layer of high-quality polyurethane that has outstanding damping characteristics. An integrated ball-and-socket joint compensates for uneven floors and sloping. A uniform distribution of the load across the entire surface of the machine mounting increases the stability and safety of the machine installation.

Isotop® ENI

Isotop® Transformer Pad TR

Effective damping

Our Isotop® ENI is designed for classical machine bearings covering a load range of up to 260 kg per loading point. Our Isotop® TR transformer bearing was designed for loads as high as 10,000 kg per set. With different subdivisions of the load range using intermediate types, both types offer optimum material capacity and the resulting excellent damping characteristics. Polyurethane effectively reduces vibrations and extends the service life of the machine components.

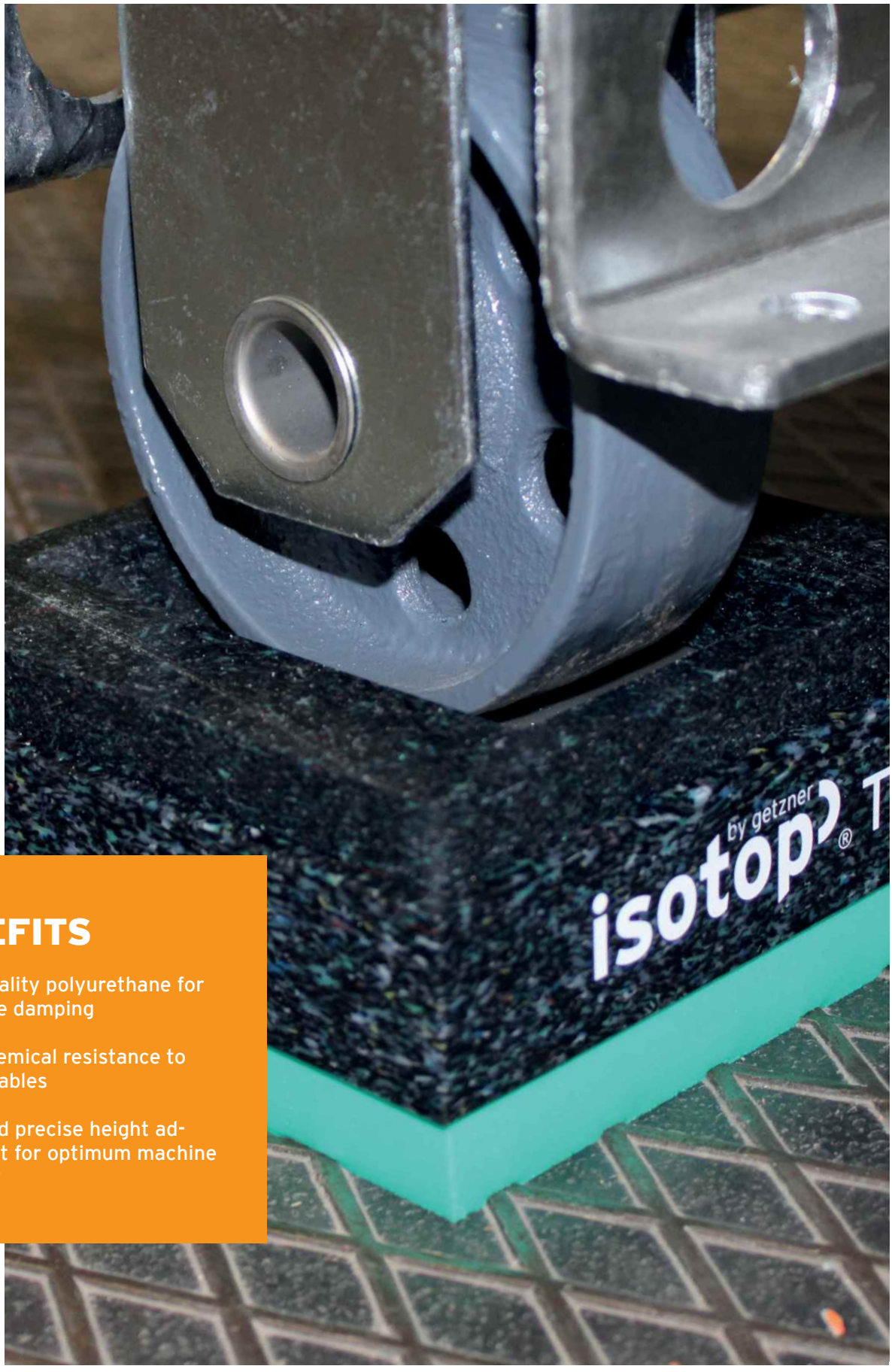
Chemical resistance

The high degree of chemical resistance of polyurethane allows it be laid directly onto the floor, making Isotop® ENI machine mountings the ideal candidate for industrial applications, as oils and chemicals – the most widely spilled consumables – pose no problems whatsoever. A longer service life and reliable operation are ensured, even in challenging environments.

Simple installation

Getzner machine mountings are designed in such a way that makes them very easy to install and to adapt to the various requirements of the machine. Their height is easy to adjust and the ability to align them quickly enables the machines to be levelled and stabilised very precisely. This increases both the efficiency and the productivity of the bedded machine.

getzner.com/machine-mounts



BENEFITS

- High-quality polyurethane for effective damping
- High chemical resistance to consumables
- Easy and precise height adjustment for optimum machine stability

TYPE OVERVIEW MACHINE BEARINGS

The Isotop® type overview is available online.

getzner.com/ overview-isotop

Download your data sheets now:

Type	Download link	QR code
Steel springs	www.getzner.com/ds-spring-mounts	
Steel springs with damper cores	www.getzner.com/ds-spring-mounts-dampercore	
Vibration dampers	www.getzner.com/ds-vibration-dampers	
Ceiling hangers	www.getzner.com/ds-ceiling-hangers	
Pressure-tension elements	www.getzner.com/ds-pressure-tension-elements	
Sandwich elements	www.getzner.com/ds-sandwich-pads	
Machine mountings	www.getzner.com/ds-machine-mounts	

Notes:

WMUF.AT

Getzner Werkstoffe, Bürs

ENGINEERING A QUIET FUTURE

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

Our innovative products are based on our own in-house developed materials such as Sylomer®, Sylodyn® and Sylodamp®, and are complemented by spring elements such as Isotop®.

Our applications effectively reduce noise and vibrations. They reduce wear, extend the service life of bedded components and improve application suitability, quality and comfort.

We specialise in integrated solutions and targeted services for sustainable vibration isolation. Our work is based on intensive research, climate-friendly production and decades of experience.

getzner.com

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