

Vibration Isolation and Noise Reduction Shipbuilding Solutions



» Fire resistance verified through
IMO/SOLAS certification



» Worldwide availability

High-tech Solution with accredited Fire Resistance Properties



Vibration on ships and offshore platforms presents a problem in that it can cause damage to the infrastructure, to mechanical systems and to sensitive items of equipment. Structure-borne noise and secondary airborne noise also have an impact on the well-being of those on board, reduce levels of comfort and make it impossible to work productively.

For decades, elastic polyurethane Sylomer® from Getzner has been used on ships and yachts. Its outstanding vibration isolation and vibration dampening qualities reduce wear and noise pollution, as well as minimizing damage to the infrastructure. The Sylomer® Marine product range is IMO/SOLAS- and Wheelmark module B/D-certified. It combines effective and reliable vibration protection with sustainable fire resistance.

Material Properties

- IMO MSC 307(88), FTP Code 2 and 5 compliant, wheelmark module B- and D-certified
- Outstanding material properties, retained over decades
- Resistant to water, salt water, oils and greases
- Light weight
- Low material thickness for reduced floor installation height
- Easy handling and assembly
- Excellent static to dynamic stiffness ratio
- Free from plasticisers and environmentally harmful substances

Benefits

- Noise reduction
- Flame retardant
- High efficiency at low thickness allows reduction in the height of floor constructions
- Maintenance-free
- Worldwide availability





Areas of application



Gaskets for housing doors and protecting electronic equipment



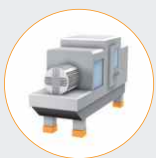
Elastic bearing of wheelhouses



Decoupling of heliports



Decoupling of entertainment areas



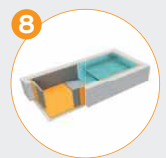
Elastic bearings for engines, motors, gear units and HVAC systems



Bearings for cabins and internal rooms (decoupled floors, walls and ceilings)



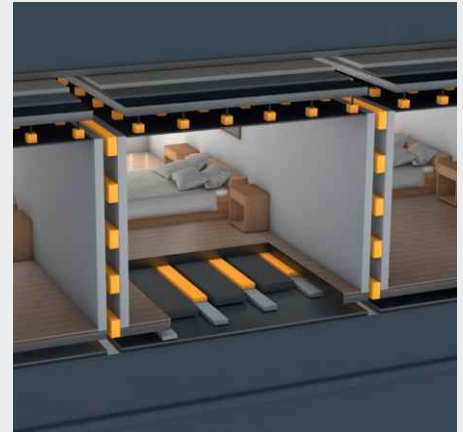
Decoupling of power distribution units and batteries



Elastic bearing of pools and jacuzzis

Yachts - a quiet and comfortable Voyage

A 30-year tradition of building yachts



The Box-in-Box system from Getzner raises levels of comfort in internal rooms.

Mechanically moving systems, such as the drive, air-conditioning and jacuzzis, cause vibrations and secondary airborne noise. Comfort on board will be considerably compromised unless measures are taken to offset this.

For decades, Sylomer® has been a tried-and-tested solution for vibration decoupling in yachts. Noise- and vibration-sensitive areas, such as cabins, are lined and decoupled from their environment with Sylomer® strips, raising comfort levels considerably. Sources of disturbance, such as engine compartments, air-handling units and swimming pools, are also fitted with elastic bearings for the same reason.

Benefits for yachts with Getzner products:

- Significantly greater levels of comfort
- Outstanding ship acoustics due to very low noise and vibration levels
- Protection for all interior fittings
- Protection for the vessel's structure
- Protection for electrical and visual equipment



Sylomer® strips decouple the ships flooring and ensure greater levels of comfort.

» *Luxury and a sense of well-being with the best in vibration protection.*

1 © McMullen & Wing, McMullen & Wing as builder and Neil Rabinowitz as photographer

An undisturbed and comfortable Voyage on Cruise Ships



Decoupling of sources of disturbance, such as entertainment areas

Cruise ships need to impress their passengers! This means they need a diverse range of facilities: passenger cabins sit alongside restaurants, pool areas, nightclubs, shops, bowling alleys and gyms. Despite this, it is still essential that passengers are able to relax in peace and be assured of a good night's sleep.

The walls and floors of cabins are fitted with bearings from the Sylomer® range developed by Getzner. This means that vibration isolation is guaranteed not only from entertainment areas, but also between individual rooms. Additionally, swimming pools, sports areas and machines can all be fitted with elastic bearings, which prevent the spread of noise and vibration.

Benefits for cruise ships with Getzner products:

- Excellent sound and vibration isolation
- No disruptive noises (drives, pumps, etc.)
- Fire resistance verified through IMO/SOLAS certification
- Free from plasticisers and environmentally harmful substances
- Low material thickness for reduced floor installation height
- Lightweight construction due to low-density material



Sylomer® Marine offers IMO/SOLAS-certified vibration protection.

» *Sustainable vibration and fire resistance with IMO/ SOLAS certification.*

Reduced Maintenance Costs for Service Vessels



Sensitive areas, such as the wheelhouse, are protected with an elastic bearing.

When using service vessels for commercial voyages, low maintenance and servicing costs offer a significant competitive advantage. Additionally, it is important to comply with international regulations relating to noise and vibration levels for the crew.

Getzner vibration solutions mean that vibrations will not be transmitted to installations for the entirety of the vessel's service life. This, therefore,

lengthens the operational lifespan of the vessel's equipment and reduces costs. Standards-compliant accommodation and working conditions can be assured by decoupling the crew areas, the wheelhouse and the work platforms from the rest of the ship. When cargo areas are vibration-isolated, sensitive goods are protected. For permanent water contact applications, Getzner offers Sylodyn® with a closed cellular structure material, which does not absorb water and is resistant to salt water.

Benefits for service vessels with Getzner products:

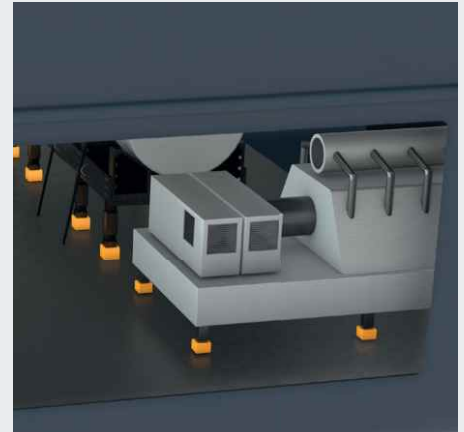
- Longer service life of structure and infrastructure
- Resistant to hydrolysis, oil, salt water, dilute alkalis and acid
- Secure transport of goods
- Excellent, standards-compliant accommodation and working conditions
- Reduced installation height
- Excellent static to dynamic stiffness ratio



Decoupling of a power distribution unit on a service vessel

» *Excellent vibration isolation, even in a challenging environment.*

Optimised Life Cycle Costs for Offshore Platforms



Bearing of machines to protect the environment and extend lifecycles

Offshore platforms are exposed to some of the roughest environmental conditions. This makes them susceptible to wear and damage. Additionally, they serve as a temporary home to many people who require optimum living and working conditions for outstanding performance.

The effective vibration dampening provided by Getzner vibration protection solutions reduces the spread of shocks and vibrations throughout the structure of the platform. This reduces wear and decreases the repair and lifecycle costs. By decoupling the skeleton of the offshore platform, it is possible to ensure the highest levels of workplace safety and standards-compliant working and living conditions for working and crew areas.

Benefits for offshore platforms with Getzner products:

- Reduced maintenance costs
- Excellent, standards-compliant working and living conditions
- Resistant to hydrolysis, oil, salt water, dilute alkalis and acid
- Effective protection from vibration
- Excellent price/performance ratio



Elastic bearing of a turbine

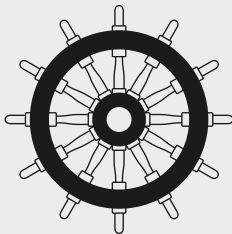
» *Outstanding and demonstrably consistent material properties over decades.*



Everything from a single source

For decades, international naval architects and acoustic engineers have been placing their trust in the experience and products of the global market leader Getzner.

The company has obtained Wheelmark and MSC 307(88) Ftp. Code 2 and Ftp. Code 5 certification for primary deck coverings for use on ships and offshore platforms.



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Getzner offers more

Together with the customer, Getzner experts develop individually tailor-made solutions - from the planning stage right through to implementation:

- Simplification of material selection with online calculation tool
- Calculation of the deflections of the elastic bearing
- Determination of the natural frequency and insulation rate
- Representation of the time-dependent compression set
- Support with developing the structure
- Determination of the optimum and most cost-effective solution

More information

www.getzner.com/ships

Outstanding material properties, even after 30 years on the Superyacht M.Y. Excellence

www.getzner.com/superyacht