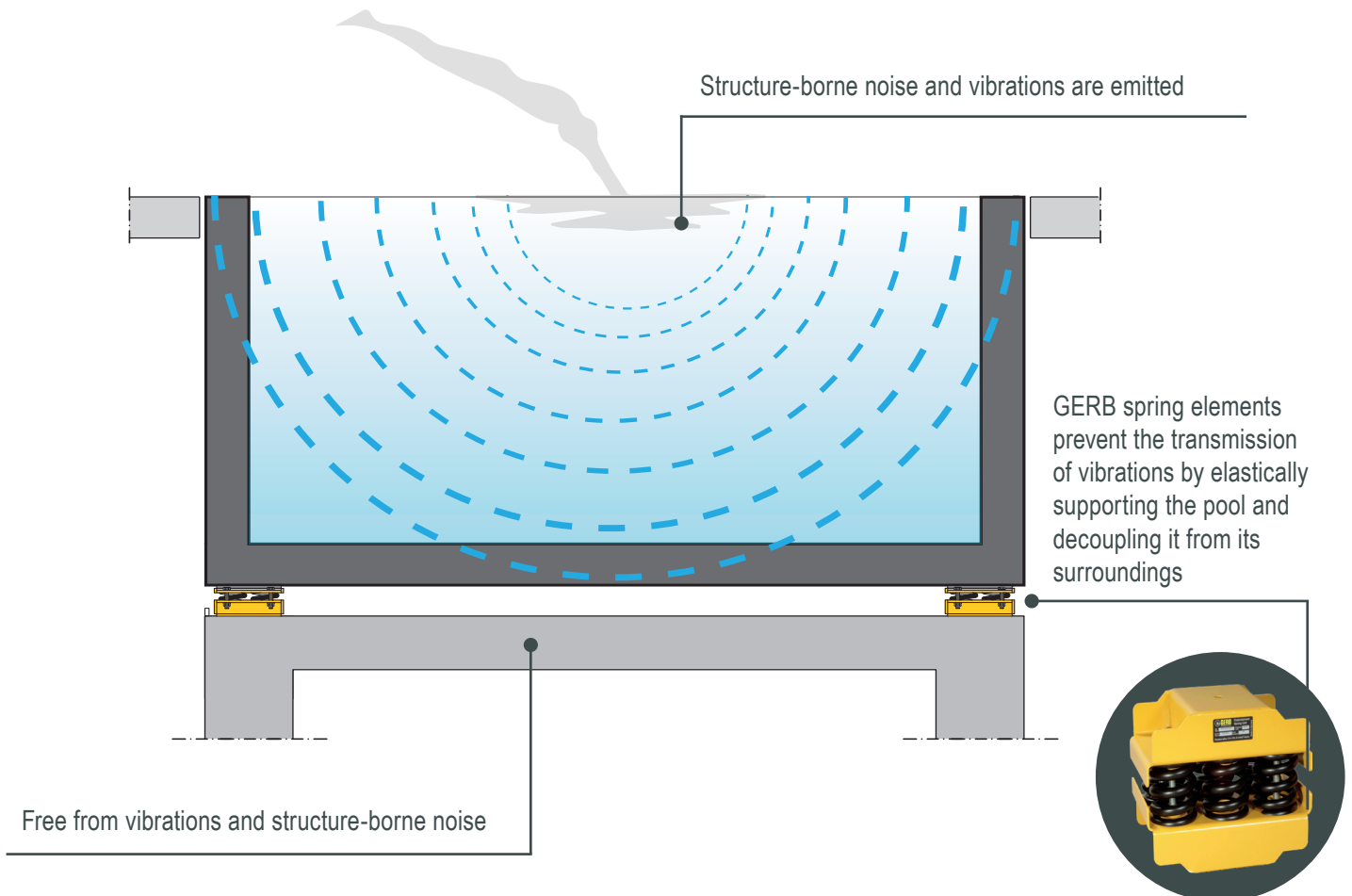


Vibration Isolation of Swimming Pools and Whirlpools



Protect the surrounding living areas



Mitigation of structure-borne noise and vibrations caused by athletic swimming, people jumping from the pool edge or special pool equipment.

Pools are typically situated on the rooftop of luxury hotels or private residences and all come with the same target: increasing the property value while not disturbing neighboring living comfort.

intensity of the activities of the users/visitors and the equipment of the facilities, vibrations are generated which are transmitted to the environment as structure-borne noise are perceived as disruptive airborne noise.

When constructing swimming pools and whirlpools in or on buildings, it is advisable to carefully check whether their use can be expected to have any disruptive effects on the built environment. The use and maintenance of swimming pools and whirlpools is always associated with induced vibrations and structure-borne noise. Depending on the

Early integration of vibration isolation measures in planning pools and wellness provides the decisive advantage. Appropriate measures for decoupling the pool from its surrounding should be part of the design.

GERB has developed a wide range of elastic support solutions for pools to protect sensitive neighbors

Engaging in activities such as athletic swimming, diving, using counter-current systems, and operating filter backwash systems and pumps can generate significant noise, often perceived as disruptive.

To mitigate these disturbances, implementing elastic support for pools and other wellness components — or even the entire wellness area — is the most effective solution. Providing a particularly soft bearing with superior isolation performance is essential to effectively reduce low-frequency noise components, which are within the range of human hearing sensitivity. The efficacy of these elastic support systems is well-documented through numerous successful installations, confirming their ability to maintain a serene and pleasant environment.

Advantages include:

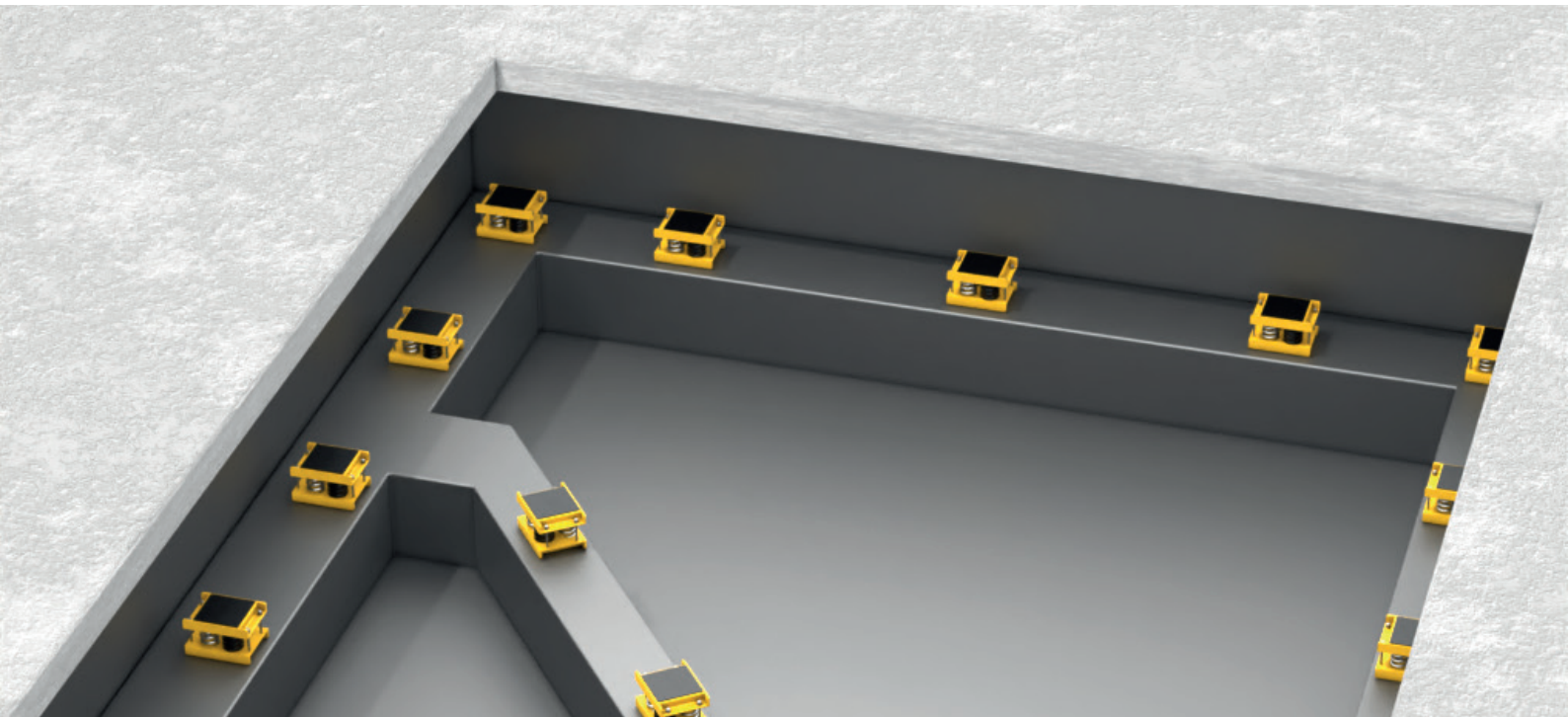
- » Highest attenuation performance
- » Highest reliability and durability
- » Maintenance free
- » Prestressable for easy installation
- » Replaceable

GERB offers:

- » Standard & tailor made solutions
- » Mounting & supervising service worldwide
- » Measurements & tests
- » Dynamic & structural calculations

For more than 50 years GERB has been innovating and developing spring elements for floating floor and room structures based on the application of steel coil springs. This system guarantees highest attenuation values due to extremely low system natural frequencies ranging from 7 Hz down to 2.5 Hz. This provides the most efficient solution in protecting highly sensitive areas from mechanical vibration and structure-borne noise.

For medium attenuation performances with supporting frequencies > 8 Hz, GERB has developed NOVODAMP®, a cost-effective solution with closed-cell polyurethane.



State-of-the-art technology to control vibration and structure-borne noise with steel springs



GERB spring support for The Fontenay Luxus Hotel Hamburg, Germany

The weight ratio of the pool structure to the filled water is typically substantial.

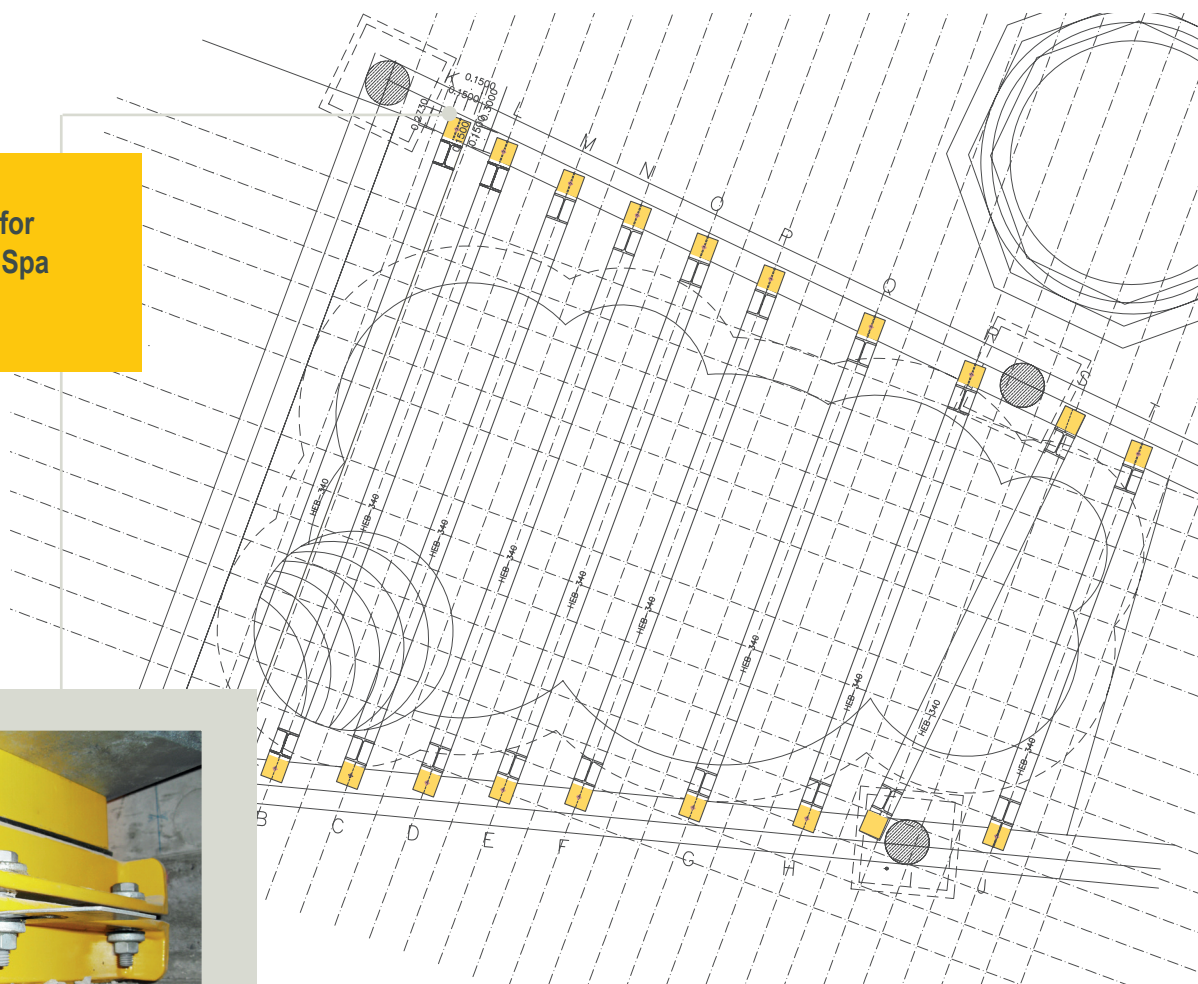
When the pool is under construction or has been drained of water for maintenance, the potential for large vertical movements should be prevented. It is therefore crucial that the spring elements are pre-stressable to allow precise adjustment during construction and to lock vertically when the pool is emptied. This adjustability ensures stability and maintains the integrity of the pool's structure and function.

GERB spring elements are generally delivered and installed pre-stressed. This approach provides a significant advantage during the construction phase, allowing for adjustments at a later stage, provided the elements remain accessible. This flexibility ensures that the installation can be adapted to meet specific requirements and enhances longevity of the structure.

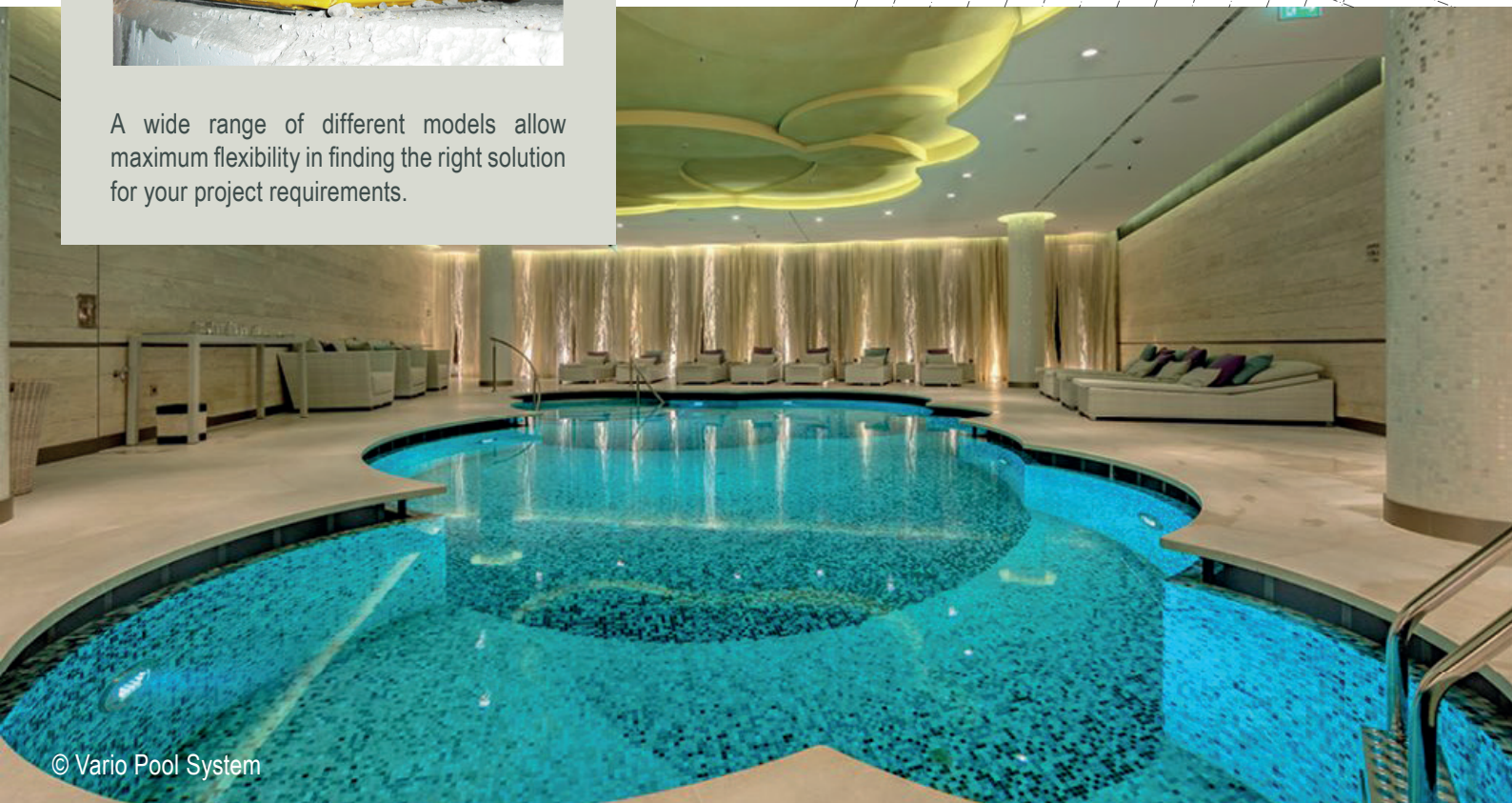


Enabling high-end comfort by isolating vibrating objects

**GERB spring support for
Waldorf-Astoria-Hotel Spa
Berlin, Germany**

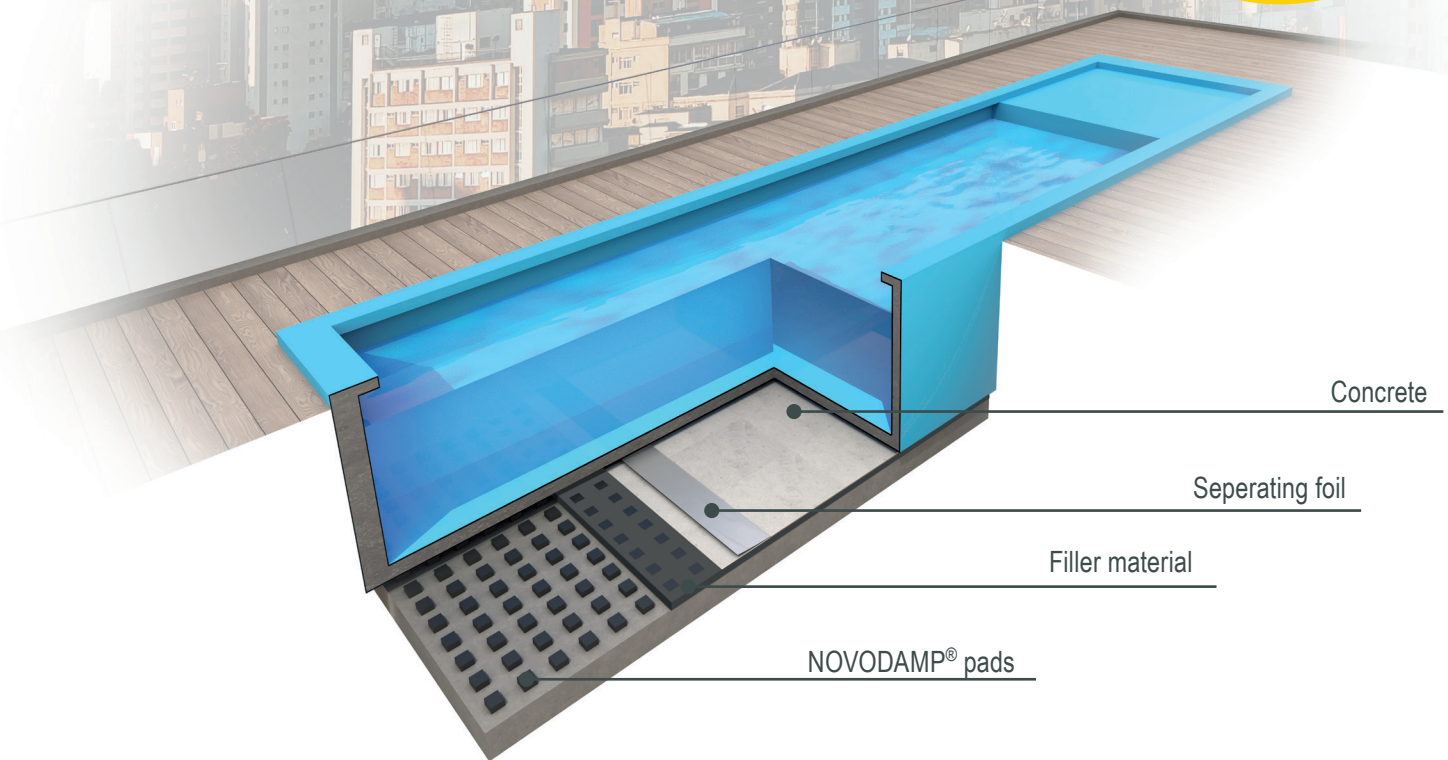


A wide range of different models allow maximum flexibility in finding the right solution for your project requirements.



The straightforward solution: NOVODAMP® closed-cell polyurethane

15 different
NOVODAMP® types
to meet any kind of
stiffness requirement



NOVODAMP® takes the lead in pad solutions being unrivalled with 15 different options, precision cuts and 5mm splits. Each material type is a testament to our commitment to innovation. The characteristics of NOVODAMP® do not change over time, by temperature, static or transient loads. Closed-cell polyurethane material has low water absorption and is designed for today's demanding structure applications.

novodamp.gerb.com/app/home



Discover our online NOVODAMP® configurator for your design and more product data:

Excerpt of pool projects:

Country	Project	Location	Building Type	Type	Area (m ²)
Brazil	Residencial E Comercial Nine	Porto Alegre	Residential	Swimming Pool	64
	Nova Carlos Gomes Residence	Porto Alegre	Residential	Rooftop Swimming Pool	78
	Residencial Partenon	Porto Alegre	Residential	Rooftop Swimming Pool	24
	With: Inviting Home	Porto Alegre	Residential	Swimming Pool	19
	Residencial Pássaros e Flores	São Paulo	Residential	Swimming Pool	36
	Residencial Lisboa 142	São Paulo	Residential	Rooftop Swimming Pool	25
	Residencial Solaz Vila Mariana	São Paulo	Residential	Rooftop Swimming Pool	39
	Residencial Solaz Vila Mariana	São Paulo	Residential	Rooftop Swimming Pool	16
	Residencial Aldana One	São Bernardo	Residential	Rooftop Swimming Pool	40
	CCCPM Marinha	Brasília	Military facilities	Rooftop Swimming Pool	90
	Freire 342	Porto Alegre	Residential	Rooftop Swimming Pool	107
Germany	Bayerischer Hof	Munich	Hotel	Swimming Pool	95
	Waldorf Astoria	Berlin	Hotell	Swimming pool and whirlpool	75
	Strandperle	Cuxhaven	Hotel	Swimming Pool	85
	Huebner	Warnemünde	Hotel	Swimming Pool	65
	The Fontenay	Hamburg	Hotel	Swimming Pool	105
	Reischlhof	Wegscheid	Hotel	Whirlpool	20
	Residential Building	Berlin	Residential	Swimming Pool	36
	Residential Building	Freiburg	Residential	Swimming Pool	40
	Residential Building	Munich	Residential	Swimming Pool	36
	Residential Building	Munich	Residential	Mini Pool	9
Italy	Counter Current Castiglioni	Milan	Residential	Swimming Pool	40
Japan	Atago Green Hills Forest Tower	Tokyo	Residential	Rooftop Swimming Pool	60

GERB NOVODAMP® for Rooftop Pool
Sao Paulo, Brazil

Base isolation frequency: < 9 Hz
Design load: 1,168 kN



About GERB

– Your single source of expertise

With locations worldwide GERB is a full range provider and your professional partner for developing, manufacturing and supplying vibration isolation solutions. Our service covers all phases of your project, from structural dynamic analyses, dynamic measurements, project-specific product development, to the installation of our products and inspections.





Consulting

We offer comprehensive consulting: from simplified dynamic calculations and measurements to complete calculations with numerical models.



Engineering

Our **GERB Engineering** division is at your disposal for further structural dynamic analyses. Our specialist engineers deal with all problems of vibrational dynamics, from feasibility studies to execution design, drawings, planning and construction supervision.



Research & Development

In addition to a wide range of standard elements our products are tailor-made to project- or customer-specific requirements. New developments are constantly advanced and project-specific tests are carried out. We also accompany you in the approval process through our own or through third-party testing.



Manufacturing

We maintain the highest quality standards in all of our 5 production facilities. We are able to produce according to various standards and requirements and hold the necessary quality certificates.



Installation Supervision & Assembly

We offer installation of our elements or onsite supervision. Our engineers also carry out inspections on existing installations regularly.



Made in Germany.
Since 1908.
Worldwide.



Interested in detailed information
or individual consulting service?

Please contact us!

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**VIBRATIONS CAN BE CONTROLLED
– WHEREVER THEY OCCUR**