

FOR **EFFECTIVE** INSULATION OF VIBRATIONS



High-quality
SPRING BEARINGS,
TUNED MASS DAMPERS and
PIPELINE DAMPERS for
industrial applications

www.kti-trautmann.com


Made in Germany

CUSHIONING MACHINES AND SYSTEMS

LOAD CAPACITY UP TO 400 TONS

KTI spring bearings serve to protect machines and systems from vibrations. Full load bearing is ensured by quality cylindrical helical compression springs. KTI spring bearings have a load capacity of up to 400 tons each. A special viscose safety damping insulates movements in the dampened machine.

No screws are necessary for fixing the spring bearings. Self-adhesive base and support plates facilitate assembly. Many KTI spring bearings can be tensioned from underneath. Machines can be easily levelled.

The construction of the spring bearings is based on a modular principle. They are compact, rectangular and inexpensive.

Clear advantages from spring bearings

KTI spring bearings isolate vibrations in the vicinity of the machine, protect it from the effects of external vibrations and effectively protect buildings and machines from earthquakes

KTI spring bearings are non-wearing in their operation, increase machines' service life and optimize compliance with emission standards..

KTI spring bearings prevent subsidence damage to the building, lead to cost savings in foundation work and enable simple levelling of machines.

APPLICATIONS

- presses and stamps with a pressing force from 500 kN to 45.000 kN
- forging presses with a pressing force from 500 kN to 50.000 kN
- forging hammers with blow energy from 10 kJ to 400 kJ
- shredder plants with machine weight of up to 500 tons
- turbines with a capacity of up to 300 MW
- pumps and blowers
- roll grinders with a grinding length of up to 15,000 mm
- test benches, centrifuges with variable rotation speeds
- building damping up to 2,000 tons in building weight



**KTI SPRING BEARINGS
NP** - low structure
height makes them
the ideal choice for
presses



**KTI SPRING BEARINGS
PNV** - very compact
with low structure
height



**KTI SPRING BEARINGS
PWG** - can be tensioned
from underneath for
precise alignment of
the press

DAMPING VIBRATIONS

SECURING BRIDGES AND BUILDINGS

KTI tuned mass dampers (TMD) reduce natural oscillations in bridges, floors and platforms. They are designed according to the customer's individual needs, adjusted to the specific building structure and ideally adopted to meet space requirements.

A passive system, they consist of a vibration mass, springs and dampers. The vibration mass is adapted precisely to the natural oscillations of the building structure. The damping effect is also precisely adjusted to structural requirements.

Tuned mass dampers are ideal for standing and suspended structures. Special designs include, for example, tilting TMDs for mobile working platforms. All vibration absorbers are optimally constructed for various loads and frequencies.

Vibration absorbers ensure safety

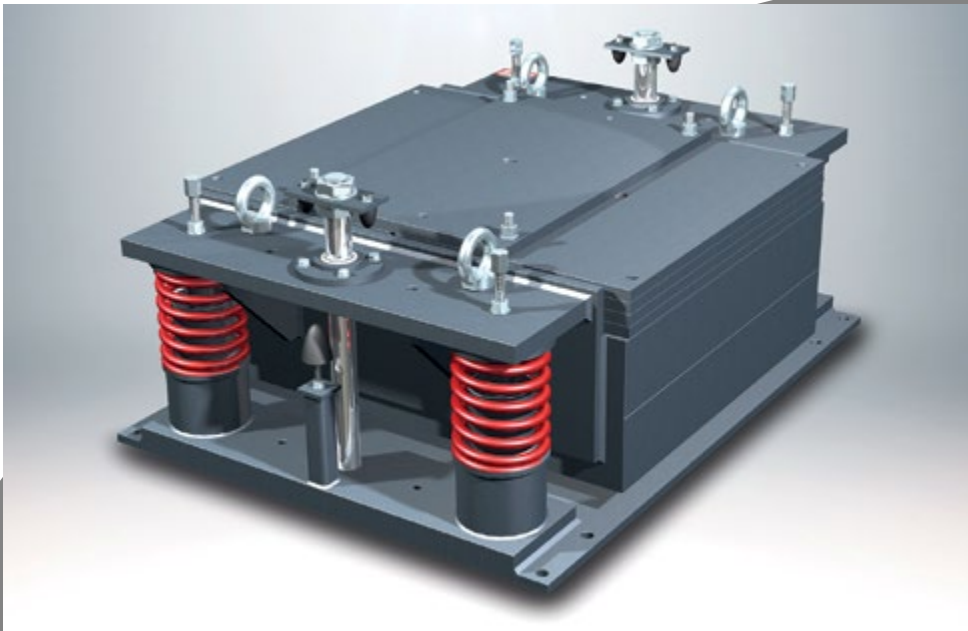
KTI tuned mass dampers reduce vibrations in bridges and floors. They thus enhance vibration insulation of the building structure. The absorption mass can measure up to 10 tons. Absorption dampers can be adjusted within the range 1.3 Hz to 5.0 Hz

KTI tuned mass dampers enable low costs due to their modular and compact construction. After installation, their features can be adjusted to the highest degree of accuracy. All functions are can be calculated with precision.

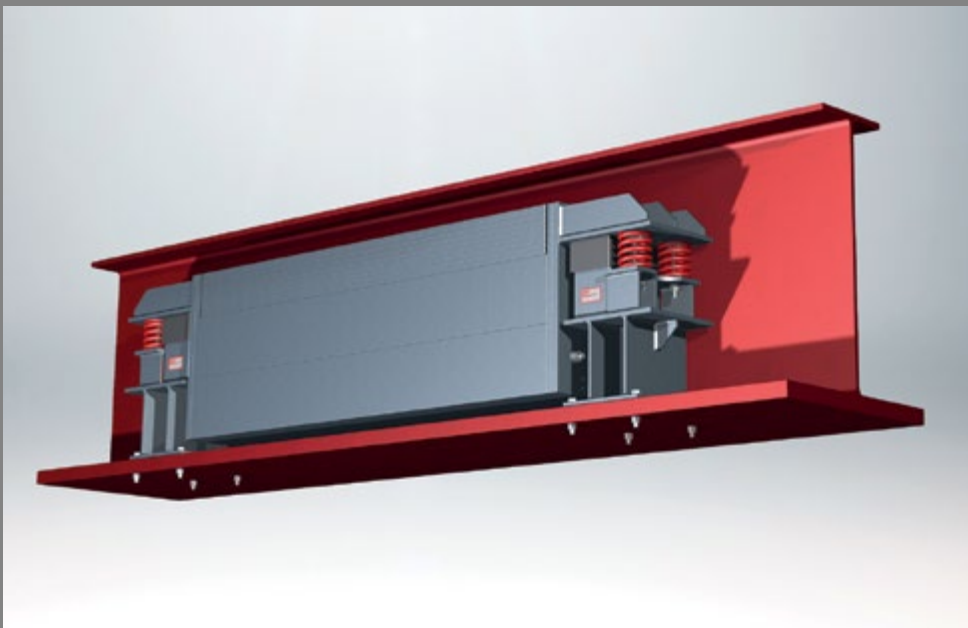
KTI tuned mass dampers are wear-free. Their temperature-stable insulation media are suitable for both interior and exterior use.

APPLICATIONS

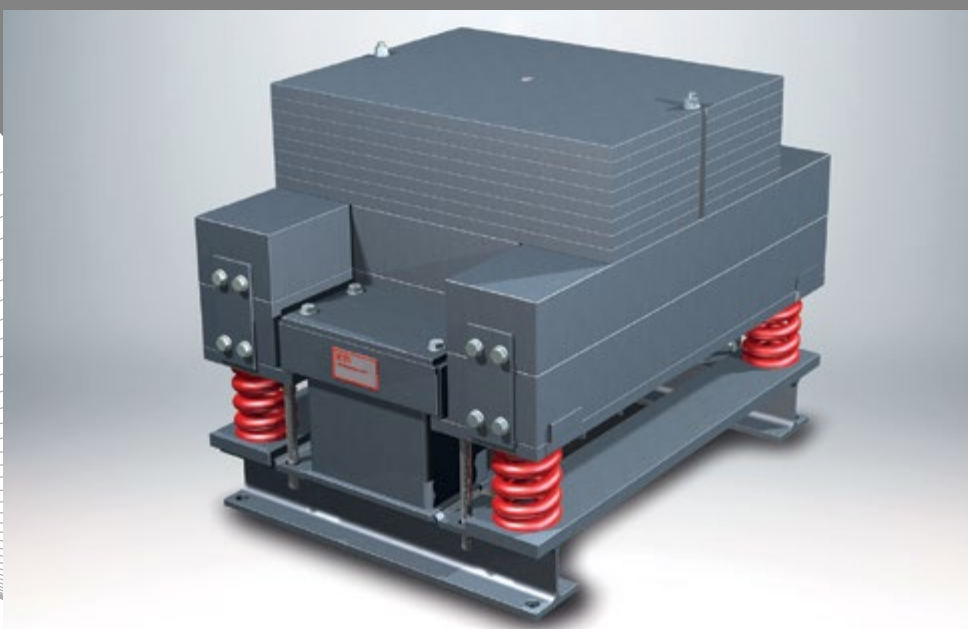
- ➔ road bridges
- ➔ pedestrian bridges
- ➔ building ceilings
- ➔ platforms
- ➔ work and steel platforms



**KTI TMDs –
precise vibration
damping for a pe-
destrian bridge in
Bavaria, Germany**



**KTI TMDs –
two dampers are used
for each of the seven
steel girders in the
intermediate ceiling of
two vertically adjacent
gyms in Berlin**



**KTI TMDs –
tuned mass dampers
for the intermediate
ceiling of an industrial
laundry**

PIPE AND MACHINE INSULATION

INTELLIGENT REDUCTION OF VIBRATIONS

KTI viscose dampers and pipeline dampers reduce vibrations in machines and pipes resulting from pressure surges. The damping effect is achieved by means of a special stamping system within the viscose mass.

Dampers are installed in a vertical standing position, with the dampers being bolted directly to the system. A range of different damping masses is available for different ambient temperatures.

Advantages/features

KTI viscose dampers reduce mechanical stress on pipes and connecting pieces with damping forces of up to 200 kN.

KTI viscose dampers insulate in all degrees of freedom of the system. Their damping effect is provided proportionally to the vibration speed. They enable lower damping in the case of thermal fluctuations and high damping of impact forces

KTI viscose dampers and KTI pipeline dampers function entirely free of wear, do not require any maintenance and have an almost unlimited service life.



APPLICATIONS

- ➔ power station construction
- ➔ plant construction
- ➔ steel engineering

KTI PIPELINE DAMPERS VRD – ideally suited for permanent use in power stations and the chemicals industry

SUCCESS PROVEN IN THE MARKET

IN-HOUSE MANUFACTURE AND ENGINEERING SERVICES

KTI Schwingungstechnik GmbH was established by the engineer Rolf Trautmann in 1987. KTI constructs, produces and delivers spring bearings, tuned mass dampers and pipeline dampers for 64 countries. KTI also provides comprehensive advice from project planning to assembly.

The basis for the success of KTI is the modular structured system for its products. This allows the optimum design, reliable calculation of the necessary damping and low costs of materials and production.

KTI also carries out static and dynamic calculations for foundation suspensions, measures vibrations and issues expert opinions. KTI monitors on request the installation of spring bearings and safety dampers, aligns machines and provides construction supervision and assembly services.

YOU WOULD LIKE TO FIND
OUT MORE ABOUT KTI?

Simply visit our website:

www.kti-trautmann.com

OUR CUSTOMERS WIDE-RANGING MARKET EXPERIENCE

➔ PRESSES AND STAMPS

Aida, Andritz Kaiser, AP&T Group, Arisa, Clearing, Colombo Agostino, Dieffenbacher, Fagor, Gräbener Pressensysteme, Haulick+Roos, Heilbronn, Hwail, Hydrapres, Hyundai Wia, Komatsu, Mossini, Raster Technology, Schuler, Simpac, Ssangyong, Verson, Zani

➔ FORGING HAMMERS

Banning, Baixie, Eumuco, Gebr. Wolff, Hydromec, Lasco, Massey, MPM, Müller, Schuler, Smeral, Vaccari

➔ SHREDDER SYSTEMS

BHS-Sonthofen, Danieli, Hoffmann, Svedala-Lindemann

➔ TURBINES, PUMPS, BLOWERS

ABB, Ansaldo, Bayer, Franco Tosi, GEC-Alstom, Korfmann Lufttechnik, MAN, Siemens-KWU, Skoda, Sulzer

➔ ROLL GRINDERS

Herkules, Ingersoll, Naxos, Tenova Pomini, Waldrich Coburg

➔ TEST MACHINES, CENTRIFUGES, MISCELLANEOUS

Daimler Chrysler, GEA Group, Hyundai, Klink Arthur, Kraus Maffei, Mazda

➔ PIPELINE DAMPERS

A & P, Atermon, Bayer, Dieffenbacher, Hesse, Midland Power, Siemens, Skoda, VAM

➔ ABSORBERS

AL Verbundträger, Bitschnau Group, CTI Systems, Lühn Bau, Mühlbauer Stahl + Metallbau, Roleff, Schindler Metallbau, Teufert

➔ END CUSTOMERS

Audi, Benteler, Bharat Forge, Bosch, Citroen, Flückiger, Ford, Gestamp, Hyundai, Miele, Opel, Renault, Samsung, Skoda, Sungwoo, Thyssen, Voestalpine, Volvo, VW

PROBLEMS WITH VIBRATIONS?

**JUST CONTACT US.
WE SUPPLY CONVINCING SOLUTIONS.**

KTI has been constructing and producing high-quality spring bearings, tuned mass dampers and pipeline dampers for industrial applications globally for more than 30 years. KTI offers a comprehensive range of engineering services and its own logistics. All KTI products are Made in Germany.

KTI – Schwingungstechnik

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