



SHOCK, VIBRATION & NOISE CONTROL

Special applications for special requirements

Absorbers for steel bridges

We also develop special and unique absorber and tuned damper systems for all kind of applications.



One of our current projects is the reduction of noise on steelway bridges. Because of their low internal damping, railway steel bridges exhibit high noise radiation for low vibration input levels.

This situation causes numerous complaints in the urban community. Among the different vibration control possibilities, the use of dynamic absorbers consisting in multi-ply sandwich design is an attractive solution with the following advantages: efficiency, few structural modification and the mounting does not cause major track exploitation disturbance. This technology has been used to reduce the noise emitted by a steel bridge in Vienna (Austria) and in Paris.



During a new study at the 'Gavignot bridge' close to Paris, rail dampers were fixed to the rail and the old rail fastening was replaced by fastening of a special type. The fastening causes a less stiffness in vertical direction compared to standard rail pads and effects lower damping of vibrations via the rail fastening into the body of the bridge and also increase the load of the absorbers. In this new composition of rail bed and dampers on the rail, the sound emission level of the bridge was reduced by **11dB(A)**.

In a further step, additional and especially low frequency tuned dampers were mounted on the horizontal plates of the bridge structure. The rumbling noise within the frequency range of 30Hz and 50 Hz was reduced impressively.

Products and solutions for ships and submarines

The S&V tuned damper concept provides a wide range of solutions for vibration problems. It is used to reduce structural vibrations with descreet frequencies on submarines and boats.

Products and solutions for aviation



Aircraft and helicopter manufacturers have been using tuned dampers succesfully to reduce cabin noise and structural vibrations for many years.

The overall cabin noise reduction resulting from a set of dampers is typicall in the range of 8 dB (A). A set of tuned dampers, correctly located onto the vibrating structure reduces the vibration and the resulted interior noise levels.

We are able to realize tests and development projects with our modern mobile and stationary test instrumentation and the assistance of our qualified staff. By using our services you will not face any loss of capacity in your facility. Our own prototype shop guarantees a very efficient and cost-saving trial installation.

With a 3 to 32-Channel data aquisition system (stationary or mobile) we are able to perform extensive test projects. With special vibration analysis software we can calculate and represent the motions of the measured structures. All measurements and analysis we can perform at the facilities of our customer.

We are looking forward to receiving your inquiry.