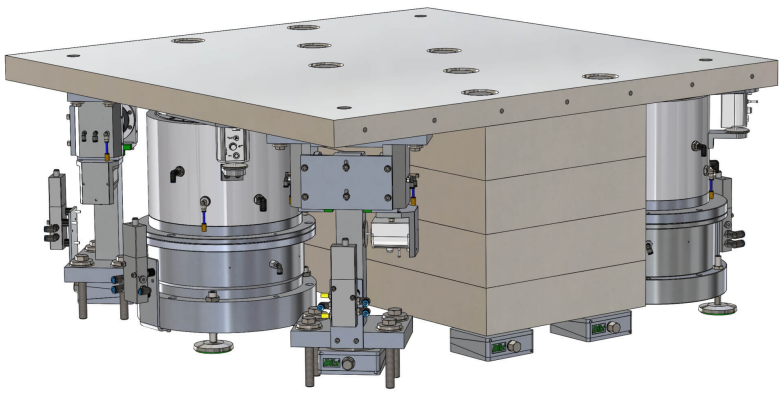
MECHANICAL ENGINEERING/PLANT CONSTRUCTION, RESEARCH/LABORATORIES

ON ONE FLOOR? CRAMPED? FLEXIBLE? PLATFORM!

One of our proven solutions for machine mounting: vibration-isolated platforms



Modular platform with optimised centre of gravity for AIS High Performance

KEYFACTS

- Machines and installations > 35 t

BACKGROUND

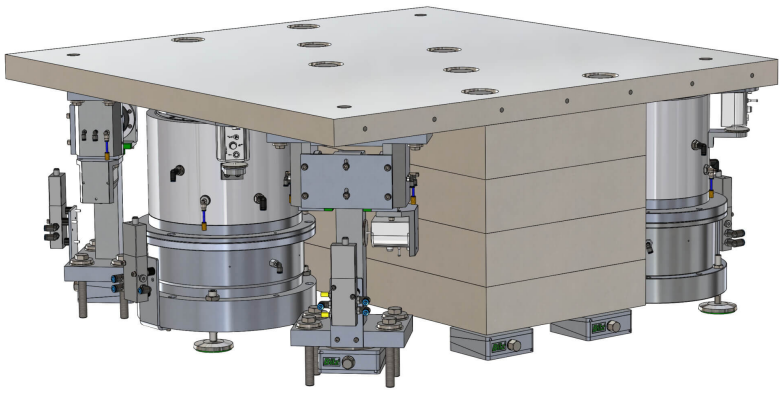
Many industrial applications require indirect vibration isolation, be it because of the high demands for isolation effectiveness and level constancy, or because of the lack of inherent rigidity. At the same time, the demands for test bench and test systems in the automotive industry have become increasingly stringent in recent years. The good news is that our vibration isolation systems have evolved just as much! An example of this are our vibration-isolated platforms, which are used successfully at engine test benches or even test benches at Formula 1.

TASK

With installations where the inherent rigidity is not sufficient for direct isolation, a corresponding rigidly designed intermediate construction must be attached between the machine and the insulators. Additional seismic mass is also required for vibration isolation of aggregates with particularly high dynamic forces. In these cases, one speaks of indirect isolation.

To find a suitable solution for each respective application, we first gather numerous data from the customer on site, such as:

- machine dimensions
- centre of gravity of the machine
- dynamic forces of the machine
- permissible machine movement
- requirements for isolation effectiveness
- requirements for mobility (flexible mounting)
- attachment components or feeders
- type of installation site (e.g. permissible floor load, floor installation)



Modular platform with optimised centre of gravity for AIS High Performance

Platform for the lowest possible installation height.
Suitable for systems with a high centre of gravity.

SOLUTION

In machine and plant construction especially, we often solve these requirements with vibration-insulated platforms. Depending on the design of the platform, the base of the machine is additionally widened and the centre of its mass is lowered due to the added mass and the positioning of the isolators. This significantly improves the mechanical stability of the whole system.

Vibration-insulated cast steel plate

Mounting the machine on a vibration-isolated platform is a proven solution if foundation insulation is not possible, for example with:

- a storey installation
- limited space
- a flexible installation site

AREAS OF APPLICATION

We look back on decades-long experience in the area of vibration technology and isolation.
We develop technically and economically reputable solutions for our clients, for example in the areas of:

- TEST BENCHES, E.G. ENGINE TEST BENCHES, GEAR BOX TEST BENCHES, ROLLER TEST BENCHES, ACOUSTIC TEST BENCHES ...
- SHAKERS
- HYDROPULSERS
- MACHINING CENTRES
- COORDINATE MEASURING MACHINES

- OPTICAL MEASURING SYSTEMS
- MICROSCOPY APPLICATIONS (TEM, REM, STM, FIB)