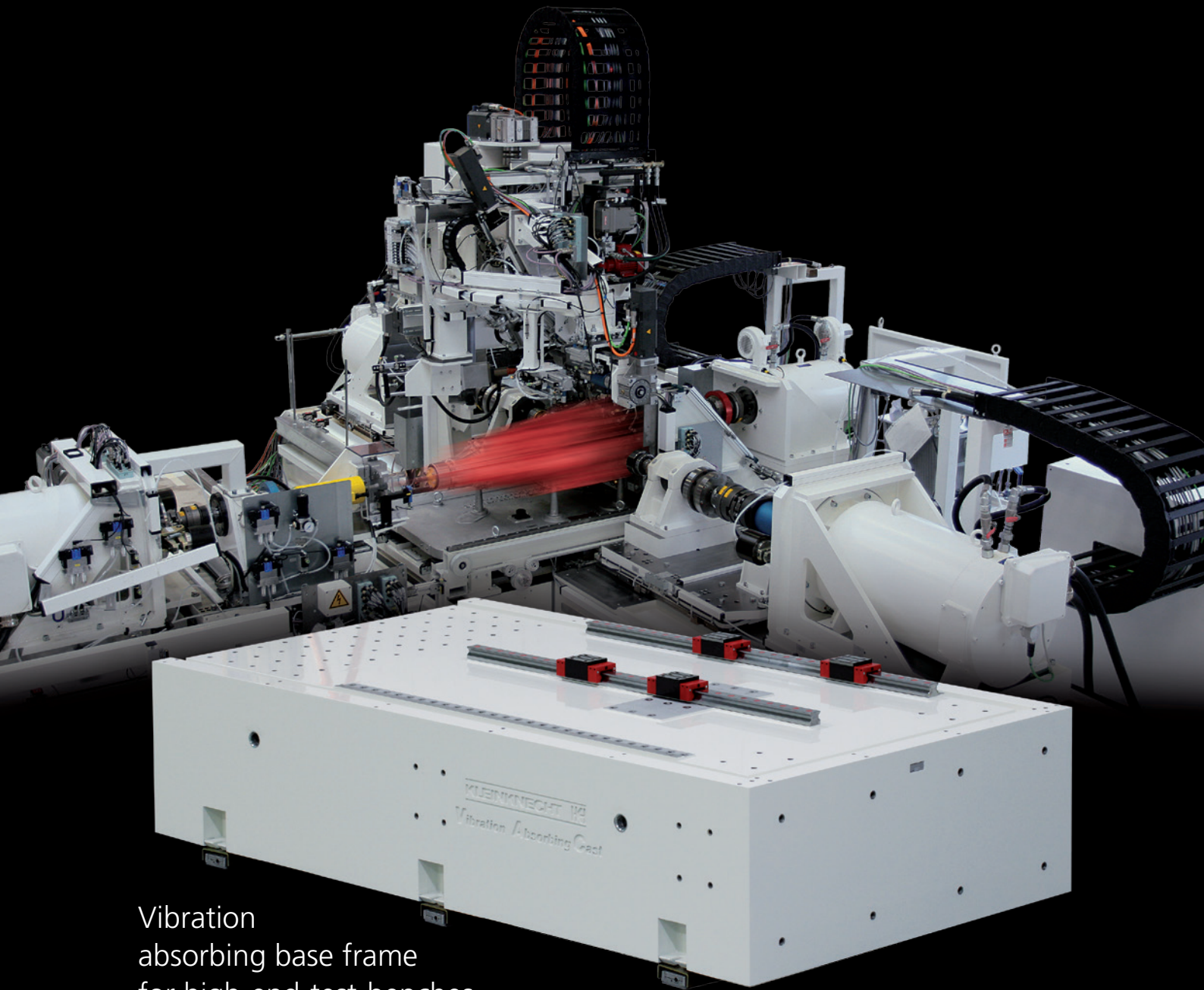
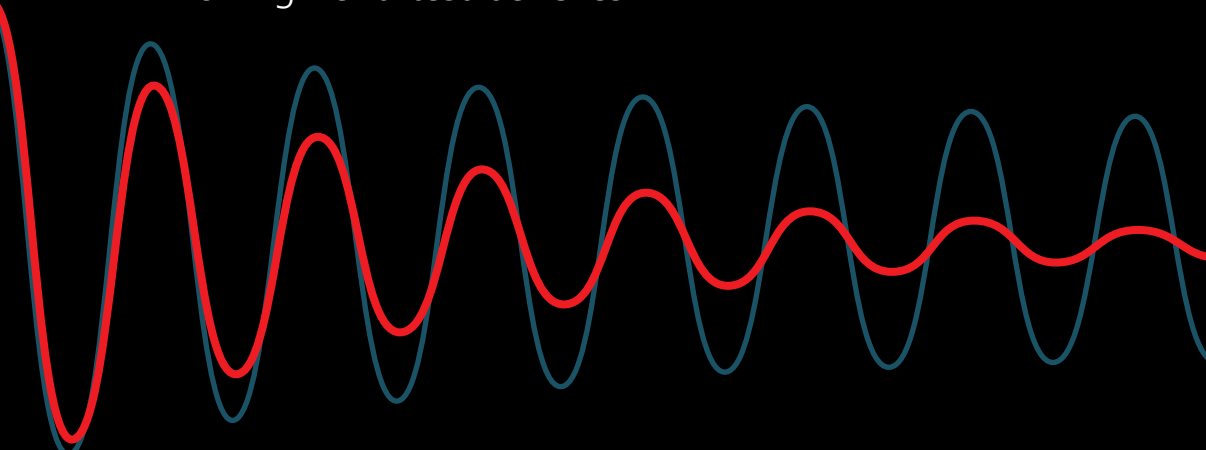


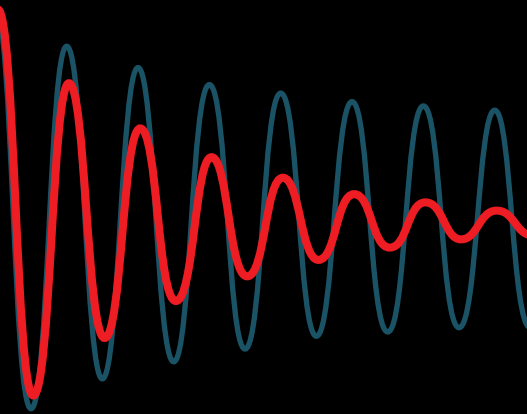


## Vibration Absorbing Cast



Vibration  
absorbing base frame  
for high-end-test-benches





## Technical Information:

### Components:

- natural quartz of differing particle size used as filler
- epoxy resin as a binding agent

### Properties:

- extreme rigidity
- extremely high vibration damping characteristics
- extraordinarily high thermal stability

### Specifications:

density:	2,3 kg/dm <sup>3</sup>
elastic modulus:	42 kN/mm <sup>2</sup>
nominal compressive strength:	110 N/mm <sup>2</sup>
tensile strength:	13 N/mm <sup>2</sup>
damping ratio:	0,3 %
thermal expansion coefficient:	16 · 10 <sup>-6</sup> K <sup>-1</sup>
heat capacity:	0,9 kJ/kgK

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## Vibration Absorbing Cast

Testing processes are becoming more and more complex. As a result, the requirements on test-benches are increasing. Kleinknecht are fully aware of these demands and take one step further in the development of their test-benches.

It is crucial that the highly sophisticated test-benches have to be resistant to vibrations, especially to vibrations transferred from the surrounding foundation. The Kleinknecht Vibration Absorbing Cast is a polymer concrete base, made from a special mineral cast. It is especially developed for the requirements of high-end-test-benches.



The cast material for the manufacturing of the base frame consists of mineral fillers of different particle sizes, which are set in an epoxy resin.

The numerous advantages of the Vibration Absorbing Cast compared to traditionally manufactured base frames are:

- **Vibration Damping** – The Vibration Absorbing Cast dampens vibrations 6 to 10 times quicker than the traditional cast iron. Consequently, the vibrations occurring during the testing process have less impact on the test results.
- **Thermal Stability** – The Vibration Absorbing Cast reacts very slowly to temperature changes, due to its high heat capacity. This way temperature fluctuations in the surrounding area have less impact on the test results.
- **Corrosion Resistance** – Corrosion is prevented thanks to a resistance to aggressive liquids such as oils, leachates, acids or other similar substances.
- **Environmentally friendly** – The production of the Vibration Absorbing Cast is carried out in a cold casting procedure. No additional thermal energy is required for the hardening process. This results in lower energy consumption and lower CO<sub>2</sub> emissions, compared to traditionally produced base frames, for example steel or cast iron. Furthermore the Vibration Absorbing Cast is totally recyclable as construction debris; which is valuable for the environment.

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