

VIBRO[⊕]L

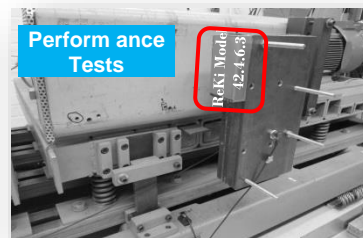
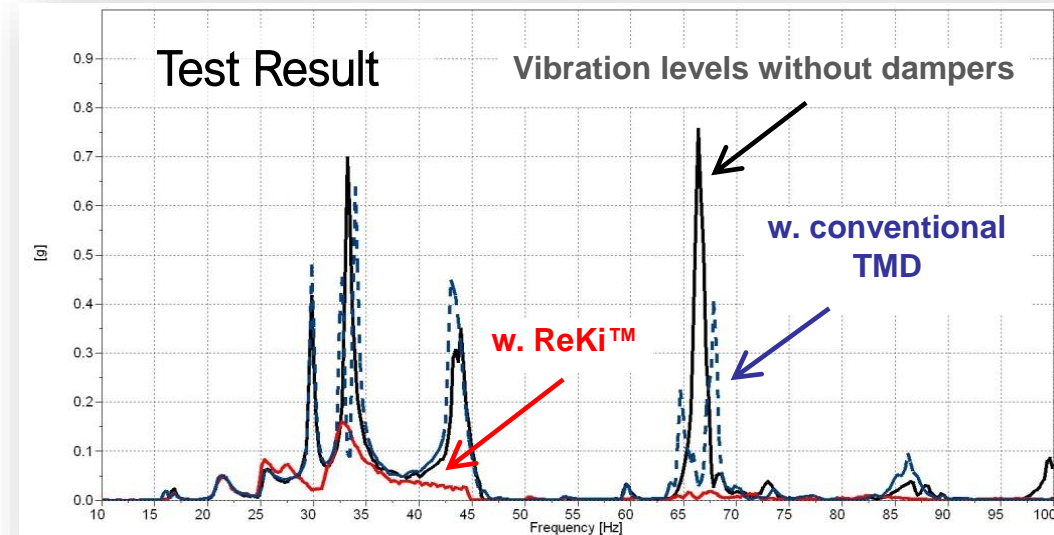
VIBRATION IN CONTROL

ReKi™ • Broadband mass damper
Simple • affordable • reliable

Resonance Killer - ReKi™

Broadband mass damper with benefits

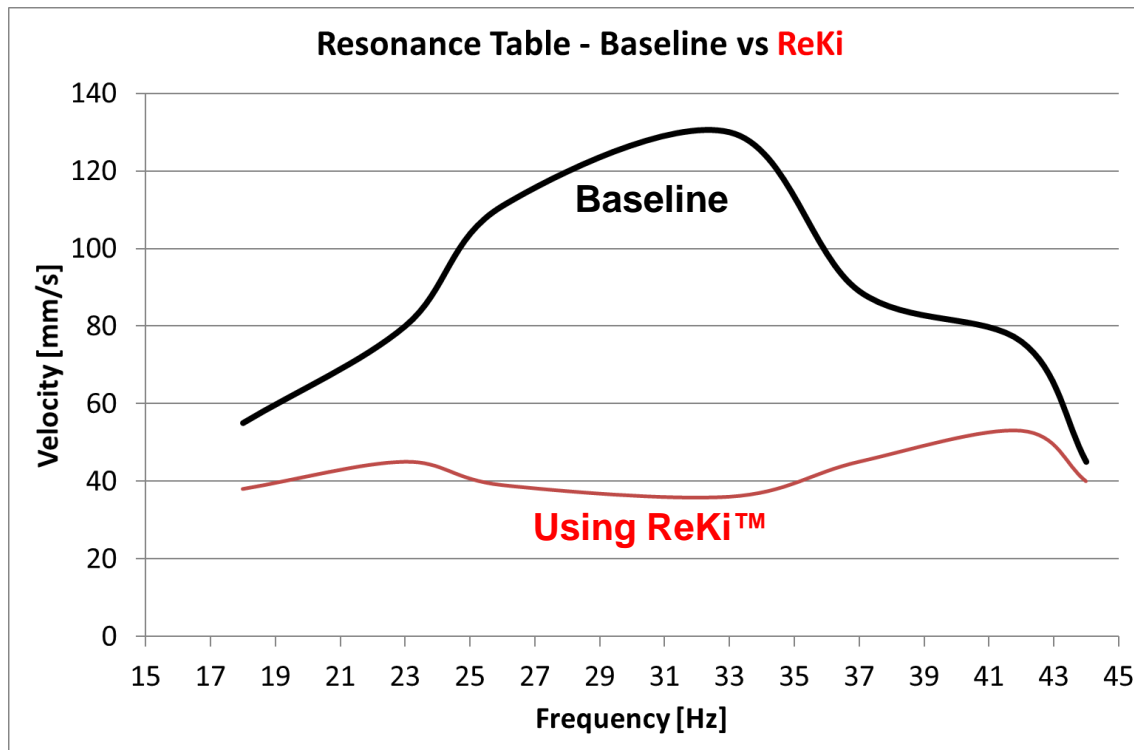
- ReKi™ is a novel broadband passive mass damper
 - Works without input energy or control
 - Low cost solution
 - Reduces disturbing vibrations in broad frequency band
 - All-steel structure
 - Works in 3 directions
- ReKi™ is used in machines, engines, pipes and structures
 - Used in applications from 0.1 kg to 100 ton
 - Frequencies in different applications from 4 to 1000 Hz



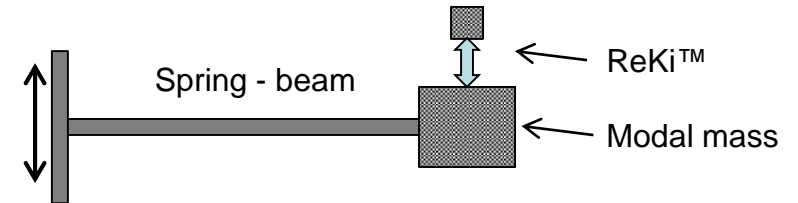
SIMPLE • AFFORDABLE • RELIABLE

Resonance Killer - ReKi™

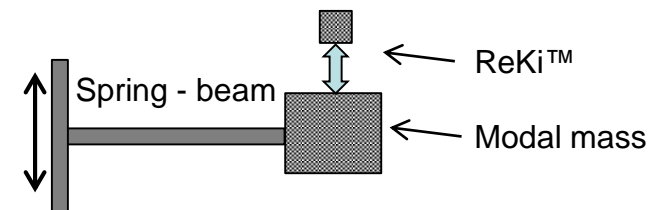
Broadband mass damper with benefits



Test Set-up



The beam length was varied in order to change the resonance frequency



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Resonance Killer - ReKi™

Broadband mass damper with benefits

ReKi™ Offering

1. Troubleshooting
 - Installation in situ
2. Design phase tool
 - Solution for resonance problem during design phase
 - Mathematical models of ReKi™ available
3. **Optimization of your application**
 - Take full advantage of ReKi's potential
 - Natural frequencies are not limitations of design anymore
 - ReKi enables for example lighter structures
 - Save money with ReKi™

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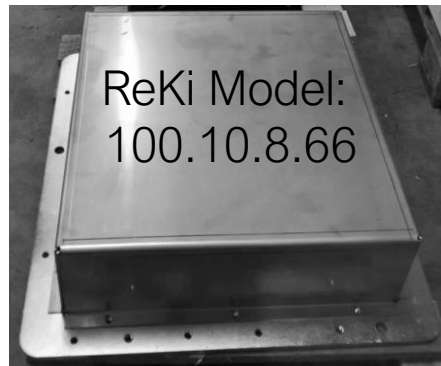
Resonance Killer - ReKi™

Broadband mass damper with benefits

ReKi™ Examples



Moving mass: 300 kg
Dampens modal mass: 5 – 10 ton
Total mass of application: 100 ton



Moving mass: 60 kg
Dampens modal mass: 1 – 2 ton
Total mass of application: 50 ton



Moving mass: 1 kg
Dampens modal mass: 30 – 90 kg
Total mass of application: 500 kg

ReKi™ can be varied from 0.1 kg to more than 1 000 kg

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Resonance Killer - ReKi™

Broadband mass damper with benefits

Case example: ReKi™ in engine component

Overall vibration RMS level

Original	With ReKi
134 mm/s	49 mm/s



Modal mass: 2000 kg
ReKi's moving mass: 100 kg

Customer's Challenge:

Vibration level of the engine component was over the limit.

Our solution:

Resonance Killer was installed to the engine component.

Benefit:

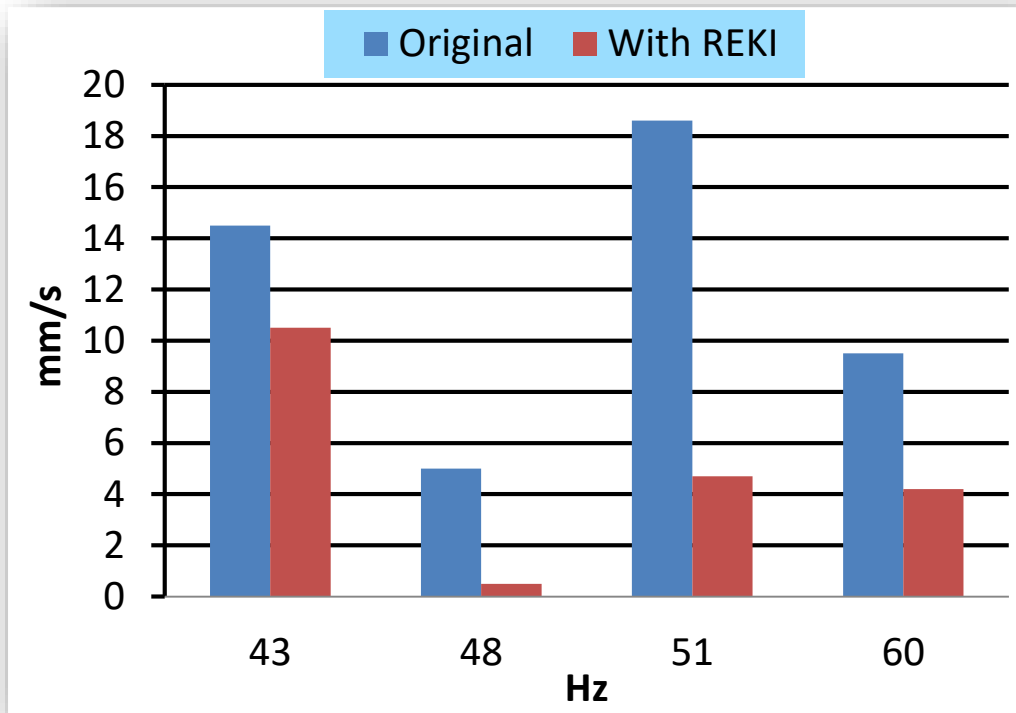
Customer can run the engines without limitations.

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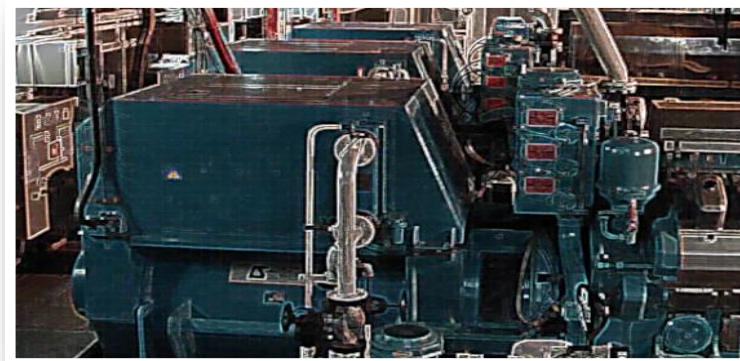
Resonance Killer - ReKi™

Broadband mass damper with benefits

Case example: ReKi™ in power plant component



Modal mass: 3000 kg
ReKi's moving mass: 150 kg

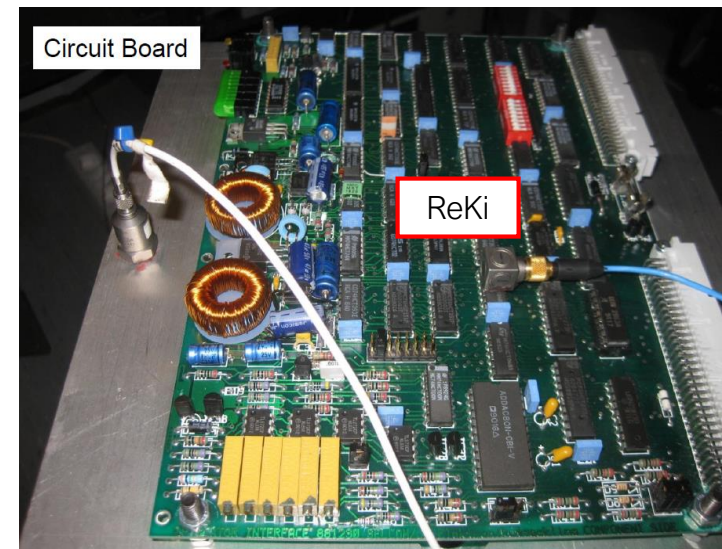
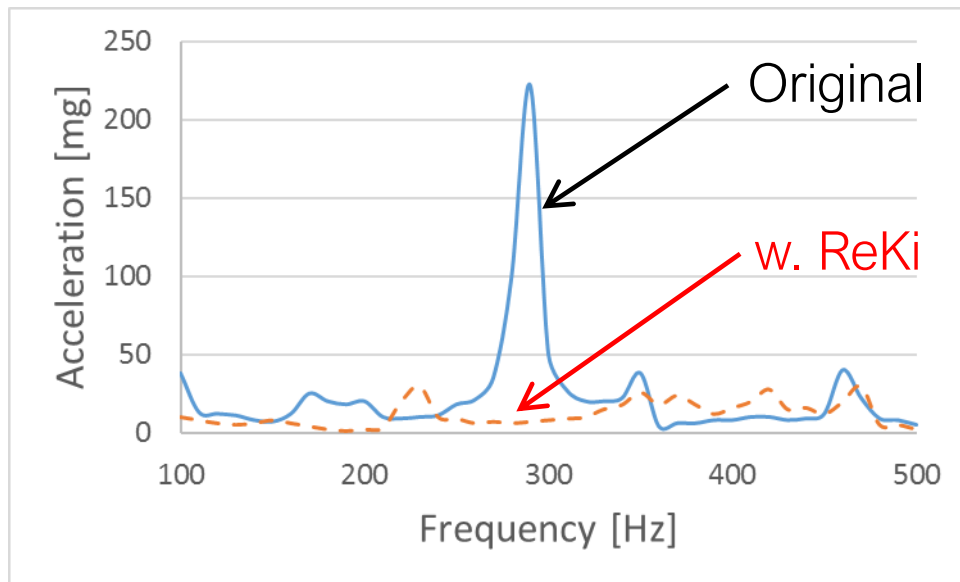


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Resonance Killer - ReKi™

Broadband mass damper with benefits

ReKi™ in circuit board - higher frequency band –
ReKi™ can be used for noise control



Modal mass: < 0.5 kg
ReKi's moving mass: < 0.1 kg

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Resonance Killer - ReKi™

Broadband mass damper with benefits

ReKi™ reduces vibration levels at resonance by 50 to 90 %

- Proven technology
 - Performance tests conducted
 - Long term tests conducted – First ReKi™ delivered 2013
 - Works in harsh environments – all-steel structure
- Ready to install for new constructions and retrofits
 - Applications from arctic to marine environments
- Patented in Europe, USA and asia

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Interested?

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