COMPONENT TESTING

VIBRATION TESTING

In our modern vibration test laboratory we test your products regarding their behavior and reliability during vibration and shock loading according to standards. We determine operational stabilities of materials and components as S/N curves.

Our comprehensive service portfolio

Vibration testing
Sine sweep, random, overlapped stimulations, resonance dwell

Frequency range	1…3500 Hz
Force vector	to 60 kN
Test acceleration up to	140 g

Shock testing
Half-sine, sawtooth, trapeze, shock response spectrum (SRS) a.o.

Peak acceleration	200 g
Shock duration	1 … 50 ms

Specimen mass

horizontally stimulated up to	2000 kg
vertically stimulated up to	1000 kg

Climate testing

Useable volume up to	1 m^3
Temperature range	-70 … +180 °C
Relative humidity	10…98 %
Temperature shock	-80 °C ... +220 °C

Vibration and shock tests also combined with temperature and humidity loading

Typical test standards

Environment
DIN EN 60 068 Environment tests
DIN EN 60 721 Classification of environment conditions

Aerospace
MIL STD-810 Test Method Standard for Environmental Engineering Considerations and Laboratory Tests
RTCA/DO-160 Environmental Conditions and Test Procedures for Airborne Equipment

Rail vehicles
DIN EN 61 373 Equipment of rail vehicles

Road vehicles
ISO 16750-3 Road Vehicles - Mechanical Loads
VW 800 00 / VW 801 01
Electrical or electronic components in vehicles
VW 802 00 Attachment parts, body attachments
BMW GS 95003
Electric-/electronic-assemblies in vehicles

Transportation and packaging
DIN EN 60721-3-2 Transport
DIN EN ISO 2247 Ready-to-ship packages
ETSI EN 300 019 Telecommunication

Our competences

- Accredition for vibration testing according to standards
- Flexible accredition for modification and new development of test procedures
- Long-standing research activities in the field of material science and testing
- Complex cooperation with other test laboratories in our company
- Sonic Fatigue Test
- Development accompanying validation tests
  - Vibration testing with temperature
  - Pressure pulse testing
  - Burst pressure testing
  - Probit test
  - Determination of Wöhler lines
  - Stair case method
  - Fuel resistance
  - Temperature shock
  - Climate testing
  - Leak test


Turbo charger


Directional antenna


Transmission housing


Toilet module aerospace

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