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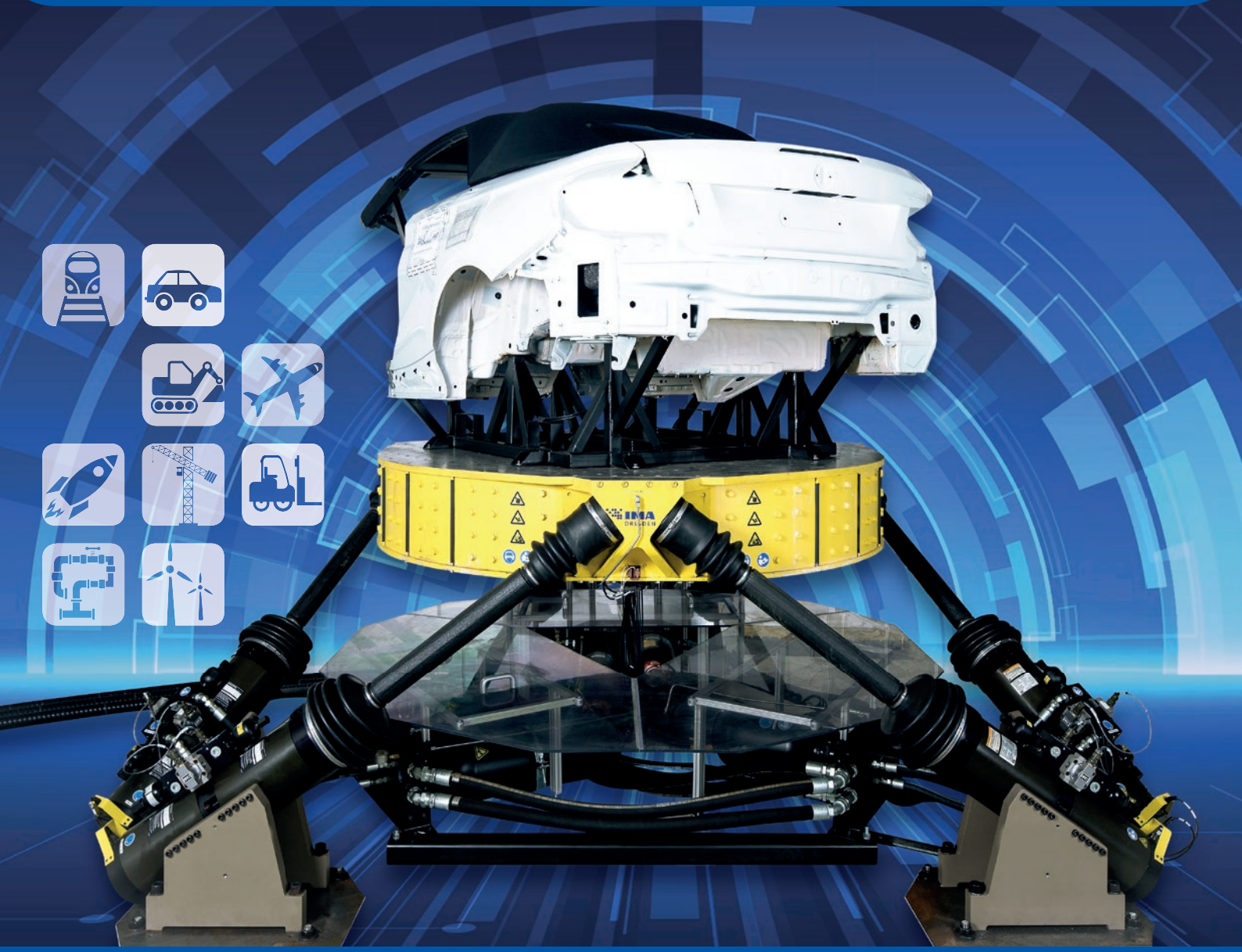

COMPONENT TESTING

MULTIAXIAL VIBRATION TEST WITH OPTIONAL THERMAL LOADING

ilac-MRA DAkkS Deutsche Akkreditierungsstelle D-PL-13119-02-00

TEST RANGE

The multiaxial vibration test is particularly suitable for testing components, modules, assemblies and subsystems such as, for example, tanks, attachment and dismantling parts, exhaust systems, roof and rear-mounted carrier systems, front-end modules, cooling systems and much more.

The multiaxial shaker table (MAST) makes it possible to generate the loads from mechanical oscillations:

- Strength tests on all vehicle components
- Simulation of the operating loads such as road bumps, steering and braking loads, load interchanging, vertical and roll motions
- Special environmental conditions (for example hot gas flow, simulation of driving through puddles)

ACCOMPANYING:

- Measurement data acquisition during test drives with subsequent analysis and test load generation
- Damage analysis and non-destructive testing
- Strength assessment, FE-Analysis

COMBINED TESTS

For load simulation or transport stress, the multiaxial shaker table is optionally combined with a hot gas generator.

This combination is particularly for testing exhaust systems and exhaust gas-carrying components. Due to their function and position in the vehicle, they are subject to complex loading conditions.

In addition, the components have to withstand mechanical vibration loads, resulting from vehicle movements or suggestions by engine vibrations. The hot gas generator is able to generate alternating thermomechanical loads on components. By combination of both systems, an overlay of stresses can be experimentally simulated.

Both systems can be operated independently.

PERFORMANCE DATA OF HEXAPOD

Table size	Diameter 2.2 m
Payload	max. 680 kg
Frequency range	0.5 - 100 Hz
Linear acceleration	up to 20 g
Linear velocity	max. 1 m/s
Linear displacement	max. +/- 145 mm

PERFORMANCE DATA OF HOT GAS GENERATOR

Hot gas mass flow	max. 0,850 kg/s
Hot gas temperature	max. 850 °C
Burner capacity	max. 700 kW

USE THE EXPERTISE OF IMA DRESDEN

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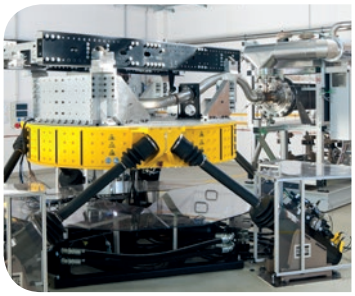
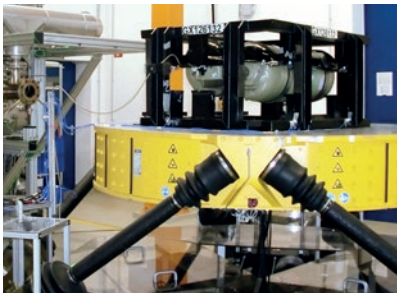
We work according to German and international standards and we are certified according to DIN EN 9100 and ISO 14001. Nearly all our test laboratories are accredited according to DIN EN ISO/IEC 17025. The test labs use modern test-, measure- and control technology on an area of more than 10.000 m² test field.

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