

Cooperation in Committees

- Chairman of DKD technical committee "Material Testing Machines"
- Chairman of DIN committee NA 062-08-11 AA (NMP 811) "Material Testing Machine"
- Deputy Chairmann of DKD technical committee "Force and Acceleration"
- VMPA working group "Material Testing Machines and Testing Apparatus"
- Deputy Chairmann of DIN committee NA 062-01-44 AA (NMP 144) "Impact Strength Testing on Metal"
- DIN committee NA 062-01-41 AA (NMP 141) "Hardness Testing on Metal"
- Managing committee of Deutscher Kalibrierdienst
- Expert committee "Bearing" - A - (411), "Pot Bearing" - B1 - (411a), "Elastomeric Bearing" - B2 - (411b), "Sliding Bearing" - B3 - (411c), "Elastic Elements for Building Support System" - B4 - (411d) of Deutsches Institut für Bautechnik (DIBt), Berlin

Calibration

MPA Universität Stuttgart is equipped with an excellent calibration laboratory which is accredited by the Deutsche Akkreditierungsstelle GmbH (DAkkS). With more than 45,000 calibration certificates under the accreditation the MPA Universität Stuttgart has a lot of experience. The run time of the contracts with our customers for more than 45 years is a signal of the high customer satisfaction.

As an independent test body for calibration the MPA Universität Stuttgart offers the following services:

- DAkkS calibration of force proving instruments in the range from 100 N to 1 MN. The calibration machines are traceable to the national standard of the Physikalisch-Technische Bundesanstalt (PTB) in Braunschweig
- DAkkS calibration / verification of material testing machines including length measuring systems, hardness testing machines, impact testing machines
- DAkkS calibration of the voltage range for amplifiers

Special facilities

- 50 kN / 250 kN und 1 MN force calibration machine for calibration of force measurement devices
- 1 MN force calibration machine for calibration of force proving instruments of class 00 at Nürnberg
- Sliding friction test devices for bearing components
- Static loading testing device for bearings and bearing components under near- service conditions
- Surface testing device to determine all standard surfaces parameters by means of the profile method

Department

Calibration, Bearing, Passive Safety

Units

- Calibration
- Bearings and Expansion Joints in Structural Engineering
- Passive Safety



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Department:
Calibration, Bearing,
Passive Safety

<https://www.mpa.uni-stuttgart.de/en/institute/departments/calibration-bearing-passive-safety/>



University of Stuttgart
Germany



6000 kN
compression testing machine

Zertifikat der Leistungsbestätigung



Stuttgart, 20.01.2019



Dynamic sled for crash simulation

Passive Safety

Type approval tests:

- Safety-belts / restraint systems according to ECE-R 16 / VSTD 26
- Child restraint systems according to ECE-R 44
- Motorcycle helmets according to ECE-R 22

Assessment of the crash behaviour:

- Cargo securing according to DIN ISO 27955 and DIN ISO 27956
- Roof racks for passenger cars according to DIN 75302
- General tests on the dynamic sled, e.g. holders / components in vehicles, according to customer specification

PPE-Product areas:

- Protective head gear
- Sports helmets generally

Memberships in the field of Passive Safety:

GRSP, VG1 international PPE, EK 8, KBA exchange of experience, Testing Laboratory Group R44, Informal Group Child Seats

Bearing and expansion joints in structural engineering

The unit bearing and expansion joints in structural engineering is an officially approved as well as notified inspection and certification body with testing, third party surveillance and certification (PÜZ) of bridge bearings, expansions joints and anti-seismic devices, as well as the investigation into qualification quality assurance and operational proving of bearings and components concerning bridges and constructions. Our objective is to improve the operating safety of constructional bearings by external controlling and quality assurance of components and constructions. Furthermore our aim is to improve development of bearings on the basis of research and the consequences from events of damage and in addition to qualify new materials and constructional concepts within the scope of research and development, the state of the art for contributing to standards and directives as well as minimizing the risk of damage. Our staff receives always training in order to meet all these high demands.

Emphasis is put on the following activities:

- Research and approval tests to prove the applicability of materials and lubricants (components) of bridges and building constructions during short and long term tests in dependence on relevant loading parameters (such as pressure, temperature, velocity) as to friction, wear, creep
- Acceptance tests on bearing components according to the required approval tests and standards as to materials characteristics (strength, hardness), surface characteristics, friction and wear behaviour
- Third-party monitoring and certification of construction products according to the EU Construction Products Regulation (CPR), such as bridge bearings, earthquake devices and expansion joints based on a harmonized standard (e.g. EN 1337, EN 15129) or an European Technical Assessment (ETA)
- Analysis of events of damage and assessment of the installation situation in the construction, investigation of dismantled bearings
- Expert activities
- Advice on processes in bearing technology
- Cooperation in committees and the expert committee "bearings" of the Deutsches Institut für Bau-technik Berlin
- Training of experts in bearings in structural engineering