

PS 01 – Multi-axial elastomer test bench



<p>Main applications (3x translation, 1x rotation)</p> <ul style="list-style-type: none"> • Static load test • Dynamic load test • Determination of static component parameter • Determination of dynamic component parameter • “BLNV-test” (load collective simulation) • Thermal tests 	<p>Technical data</p> <p>Static:</p> <ul style="list-style-type: none"> • Load range z-axis: +/- 50 kN • Load range x-/y-axis: +/- 25 kN • Torque: 400Nm at 6Hz • Angle: +/-35° at 5 Hz • Travel: max. +/- 25 mm, • Frequency range: 0 - 110 Hz at approx. 0,1 mm • Frequency range: 0 - 80 Hz at approx. 1 mm • Temperature range: ambient temperature to 130°C
<ul style="list-style-type: none"> • Specimen • Elastomers • Hydro bearings 	<p>Characteristics</p> <ul style="list-style-type: none"> • Max. dimensions of the specimen (incl. adapters): X x Y x Z: 250 x 250 x 300 (mm) • Max. capacity of the testing table: 50 kN
<p>Location August-Bebel-Straße 32, 01219 Dresden</p>	

Measured values

- Force (strain gauges): - 3-axial
(raw data, mass compensated)
- Travel (ind.): - 3-axial
- free sensors (10mm stroke)
- Acceleration: 3-axial (Extension possible)

Measuring devices

- Load cell: GTM multi component
- Inductive position sensor included in cylinder
- External measurement sensors for temperature and acceleration

Components of test rig

- Test rig
- Controller EU3000
- Operator computer in control room
- Hydraulic-Service-Mainfold
- Reference specimen (for calibration)
- Measurement computer

Software for controlling and data collection

- Software EU3000
- Extension for elastomer bearings
- Extension for BLNV: ITRM

Available supply in test cell

- Electrical supply 16 A (if necessary 32 A)
- Compressed air 10 bar
- Hydraulic fluid HLP 46

Reference projects

Characterisation of elastomer bearings

Customers: automotive industry including suppliers