

## PS01 – Multi-Axial Elastomer Bearing Test Rig



<p><b>Main Applications</b> <b>(3x Translation, 1x Rotation)</b></p> <ul style="list-style-type: none"> <li>• static Load Test</li> <li>• dynamic Load Test</li> <li>• Determination of dynamic Component Parameters</li> <li>• Determination of static Component Parameters</li> <li>• Durability Tests under operating Load Conditions</li> <li>• thermal Tests</li> </ul>	<p><b>Technical Data</b></p> <p>Static:</p> <ul style="list-style-type: none"> <li>• Load Range Z-Axis: +/- 50 kN</li> <li>• Load Range X,Y-Axis: +/- 25 kN</li> <li>• Torque: 400Nm at 6Hz</li> <li>• Angle: +/-35° at 5 Hz</li> <li>• Travel: max. +/- 25 mm</li> <li>• Frequency Range: 0 - 110 Hz at ca. 0,1 mm</li> <li>• Frequency Range: 0 - 80 Hz at ca. 1 mm</li> <li>• Temperature Range: Room Temperature up to 130°C</li> </ul>
<p><b>Specimen</b></p> <ul style="list-style-type: none"> <li>• Elastomers</li> <li>• Hydro Bearings</li> </ul>	<p><b>Characteristics</b></p> <ul style="list-style-type: none"> <li>• max. Dimensions of the Test Specimens (incl. Adaptation): X x Y x Z: 250 x 250 x 300</li> <li>• max. Load Capacity of the Test Table: 50 kN</li> </ul>
<p><b>Measure Values</b></p> <ul style="list-style-type: none"> <li>• Force (DMS): - 3-axis (Raw Data, Mass Compensated)</li> <li>• Displacement: - 3-axis - free Probes (10mm Stroke)</li> <li>• Acceleration: 3-axis (Extension possible)</li> </ul>	<p><b>Measurement Devices</b></p> <ul style="list-style-type: none"> <li>• Load Cell: GTM Multi-Component Transducer</li> <li>• Displacement Measuring System integrated in the Working Cylinder</li> <li>• external Sensors for Acceleration and Temperature Measurement</li> </ul>
<p><b>Components of the Test Rig</b></p> <ul style="list-style-type: none"> <li>• Test Rig</li> <li>• Controller EU3000</li> <li>• Operating PC in the Control Room</li> <li>• Hydraulic-Service-Mainfold</li> <li>• Reference Test Specimens (Calibration Specimens)</li> <li>• PC-Measuring Computer Hydropulser in the Test Control Room</li> </ul>	
<p><b>Software for Control and Data Acquisition</b></p> <ul style="list-style-type: none"> <li>• Software EU3000</li> <li>• Extensions for Elastomer Bearings: Elastomer</li> <li>• Extension for Operating Loads Post-Testing: ITRM</li> </ul>	
<p><b>Available Supplies</b></p> <ul style="list-style-type: none"> <li>• Electrical Connection 16 A (32 A if necessary)</li> <li>• compressed Air 10 bar</li> <li>• Hydraulic Oil HLP 46</li> </ul>	
<p><b>References</b></p> <p>Characterization elastomeric Bearing</p> <p>Customers: Automotive Industry and its Suppliers</p>	