

# **Shock Absorber Testing Machines**



## WPM WERKSTOFFPRÜFSYSTEME LEIPZIG

For dynamic tests of shock absorbers, WPM Leipzig offers shock absorber testing rigs with servohydraulic or electromechanical drive. The measurement data is recorded and evaluated by displacement, force and velocity.

#### Servo-hydraulic Shock Absorber Testing Machine SDP 50H

The testing rig consists of a 2-column machine frame with

- A servo-hydraulic testing cylinder mounted at the lower table (nominal force ± 25 kN, nominal stroke 400 mm, integrated displacement sensor)
- A force transducer mounted at the upper crosshead

By means of an operating panel at the machine frame, the cross head and the position of the piston stroke are adjusted manually. The shock absorber test is carried out in vertical position of the machine frame.



#### Servo-hydraulic Shock Absorber Testing Machine SDP 25H

The shock absorber is fixed at the testing cylinder piston and at the force transducer by means of a bifurcate fixing with bolt receivers for the corresponding size of the shock absorber.

- Max. test speed with shock tests: 4 m/s
- Machine frame of two culomns with test cylinder at the bottom
- With noise insulation chamber
- With integrated displacement sensor
- With force transducer
- With 2 servo-valves
- Adjustable stroke
- Nominal force: ± 25 kN



### **Electromechanical Shock Absorber Testing Machine SDP 15**

The design of the electromechanical shock absorber testing rig is based on a one-column single-room frame with continuously adjustable crosshead. A construction out of welded steel sheets is the column of



the machine. It is screwed and pinned with the machine table. At the column, a T-slot plate is screwed and fixed. It bears and guides the crosshead. The crosshead is firmly connected with the column by friction contact clamping, which is unlocked to adjust the crosshead. The height is adjusted by an electrically driven spindle.

- Test load ± 15 kN
- Test room

   Free width
   Stree height (without adaptor)1500 mm

  Frame stiffness
  Test frequencies
  Test speed
  max. 1.2 m/s
- Adjustable stroke

#### **Control System and Evaluation Software**

- Control unit dynaSax-D3 and test software dynaSax 3
- 16-bit data collection with up to 8 kHz
- Set point generation of test frequencies up to 100 Hz
- Test report:
  - Can be individually edited
  - Force-displacement diagram
  - Force-speed diagram
  - Results of tests as table



up to 100 mm

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