

# Automotive Engineering

## 1. Testing Facilities (System)



### Testing Center for Suspension and Brake Systems

Testing center used for interdisciplinary research tasks with regard to driving safety, driving comfort and environmental protection.

- Simulation of heavy vehicles (transporters)
- High performance testing and comfort analysis (NVH)
- Investigations on braking systems, chassis components and complete axles

#### Specifications:

- Revs:  $n_{max} = 2500 \text{ min}^{-1}$
- Speed:  $v_{max} = 310 \text{ km/h}$
- Momentum:  $M_{max} = 2300 \text{ Nm}$  (bis ca.  $1100 \text{ min}^{-1}$ )
- Inertia:  $I_{max} = 191 \text{ kgm}^2$
- Air conditioning:  $Q_{max} = 4200 \text{ m}^3/\text{h}$   
-20 bis +50 °C; 15-85% rel. Feuchte



### Drive Train Test Centre

The drive train test centre allows interdisciplinary research tasks on vehicle components of conventional and alternative drive concepts with regard to efficiency, environmental compatibility and comfort properties.

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|-----------------------|---|
| 3-machine operation:  | Axle drives,<br>Drive train: Crankshaft, side shaft<br>Transmission |
| 2-maschine-operation: | Manual and automatic transmission                                   |
| 1-Maschinen-Betrieb:  | Internal combustion engines<br>Electric engines<br>Brake components |

