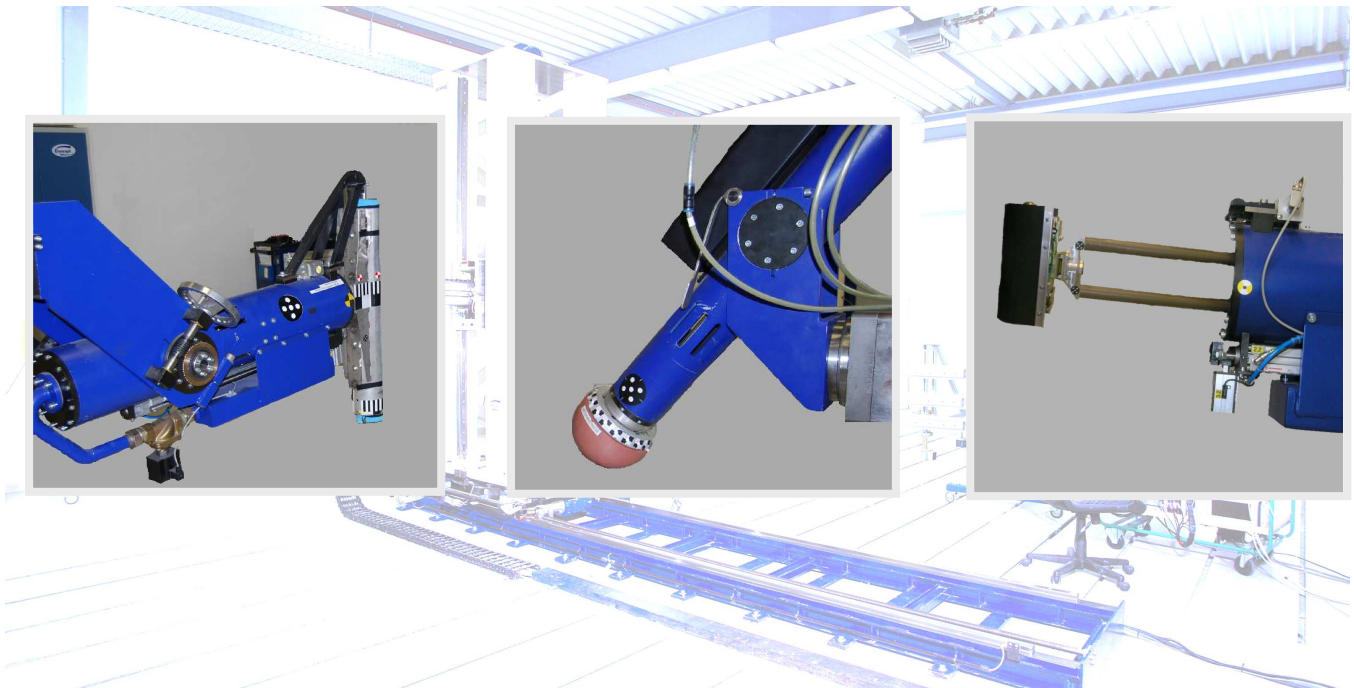


Concept[®] - PEDESTRIAN PROTECTION TEST SYSTEM



Functional Description

The Pedestrian Safety Test System developed by Concept is used for the testing of the vehicle front according to the test regulations directive 2003/102/EC and 2004/90 EC, EuroNCAP, J MLIT, JNCAP, TRIAS 63. Using different impactors the hood and bumper are tested for their conformity to the test regulations. With the CONCEPT test system, FMH- testing according to FMVSS 201 is also possible.

The measured accelerations on the testing specimens enable conclusions to be drawn regarding the components and specimens forces.

Due to the robust design with hydraulic clamp mechanisms, the possibility to carry out FMH and FGS tests with one system exists. Hereby the customer is offered a higher investment protection!

FROM USER TO USER

As a user and system developer, we offer our customers our know-how.

Benefits at a Glance:

- ✓ Reproducible measuring results (repeat precision $\pm 0,2$ km/h) due to backlash-free axes, hydraulic brake assembly and patented launch mechanism
- ✓ Large cost savings due to the „comparison matrix“ and thereby avoiding comparison tests
- ✓ Long lifespan due to robust construction, symmetrical force diversion via patented pillar design and section modulus of all axes
- ✓ Simple adjustment to the test points using a compact canon-form with 6 positioning possibilities, → all room angles are reachable
- ✓ Quick, cost-effective adjustment via the option: starting aid (glass head)

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Technical Data:

- Work and Control Medium: Nitrogen
- Supply Pressure: 10 bar
- Test Speed: 8 up to 50 km/h
- Repeat Precision: ± 0,2 km/h
- Vertical Pivot Range: + 20 up to -90°
- Control System: SPS Siemens S7
- E- Connection Power: ca. 2,5 kW
- Total Weight: ca. 7.000 kg

System Description

- 1 electrically powered rack and pinion gear (Y- axial)
- 2 electrically powered spindle stroke gears (X and Z- axial)
- 1 electrically powered chain gearing (tower rotation around Z axial)
- 1 Servo-axial with hydraulic clamping (rotation around Y- axial)
- 1 Manual pivot axial with eccentric clamping (vertical test head positioning)
- 1 Manual worm gear (vertical test head positioning)
- 1 Wireless remote control with digital traverse path indicator (optional), continuous adjustability of all transverse paths via FU / rapid transverse 50%, as well as incremental relative measuring

System Measurements*:

- Test bed: 5.200 mm
- Height of tower: 3.870 mm
- Length of the arm: (without launcher) 3.725 mm

Transverse Paths:

- X-Direction (Crosswise to the Vehicle) to 3.880 mm
- Y-Direction (Vehicle Longitudinal Axis) to 2.100 mm
- Z-Direction (Height Adjustment) to 2.160 mm

* System measurements are individual adjustable to customer requirements.

Test Data Bank:

The test data bank is used for the consolidation and management of the following data:

- Measuring data (launch force, speed, position of the system)
- Crash data (high-speed video, acceleration curves, DAT-files, sensors used, impact location, pictures)
- Test setup with component management
- Possibility of combining project related analysis data and tests

✓ The Concept test data bank can be individually customized.

